

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 FEB 27 New STN AnaVist pricing effective March 1, 2006
NEWS 4 MAY 10 CA/Caplus enhanced with 1900-1906 U.S. patent records
NEWS 5 MAY 11 KOREPAT updates resume
NEWS 6 MAY 19 Derwent World Patents Index to be reloaded and enhanced
NEWS 7 MAY 30 IPC 8 Rolled-up Core codes added to CA/Caplus and
USPAFULL/USPAT2
NEWS 8 MAY 30 The F-Term thesaurus is now available in CA/Caplus
NEWS 9 JUN 02 The first reclassification of IPC codes now complete in
INPADOC
NEWS 10 JUN 26 TULSA/TULSA2 reloaded and enhanced with new search and
and display fields
NEWS 11 JUN 28 Price changes in full-text patent databases EPFULL and PCTFULL
NEWS 12 JUL 11 CHEMSAFE reloaded and enhanced
NEWS 13 JUL 14 FSTA enhanced with Japanese patents
NEWS 14 JUL 19 Coverage of Research Disclosure reinstated in DWPI
NEWS 15 AUG 09 INSPEC enhanced with 1898-1968 archive
NEWS 16 AUG 28 ADISCTI Reloaded and Enhanced
NEWS 17 AUG 30 CA(SM)/Caplus(SM) Austrian patent law changes
NEWS 18 SEP 11 CA/Caplus enhanced with more pre-1907 records
NEWS 19 SEP 21 CA/Caplus fields enhanced with simultaneous left and right
truncation
NEWS 20 SEP 25 CA(SM)/Caplus(SM) display of CA Lexicon enhanced
NEWS 21 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 22 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 23 SEP 28 CEABA-VTB classification code fields reloaded with new
classification scheme

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * * STN Columbus *

FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006

```
=> file caplus
COST IN U.S. DOLLARS                               SINCE FILE      TOTAL
                                                    ENTRY        SESSION
FULL ESTIMATED COST                           0.21          0.21
```

FILE 'CPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14
FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s us 20040146955/pn
L1 1 US 20040146955/PN
(US2004146955/PN)

=> sel rn
E1 THROUGH E108 ASSIGNED

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3
DICTIONARY FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3

New CAS Information Use Policies; enter HELP.USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when using the search function.

conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s el-e108

```
1 138-39-6/BI  
    (138-39-6/RN)  
1 3523-95-3/BI  
    (3523-95-3/RN)  
1 35303-76-5/BI  
    (35303-76-5/RN)  
1 63-74-1/BI  
    (63-74-1/RN)  
1 120-97-8/BI  
    (120-97-8/RN)  
1 120279-96-1/BI  
    (120279-96-1/RN)  
1 121-30-2/BI  
    (121-30-2/RN)  
1 138-41-0/BI  
    (138-41-0/RN)  
1 138890-62-7/BI  
    (138890-62-7/RN)  
1 14949-00-9/BI  
    (14949-00-9/RN)  
1 165668-41-7/BI  
    (165668-41-7/RN)  
1 2153-13-1/BI  
    (2153-13-1/RN)  
1 215998-40-6/BI  
    (215998-40-6/RN)  
1 215998-42-8/BI  
    (215998-42-8/RN)  
1 215998-44-0/BI  
    (215998-44-0/RN)  
1 215998-46-2/BI  
    (215998-46-2/RN)  
1 215998-48-4/BI  
    (215998-48-4/RN)  
1 215998-50-8/BI  
    (215998-50-8/RN)  
1 215998-52-0/BI  
    (215998-52-0/RN)  
1 215998-54-2/BI  
    (215998-54-2/RN)  
1 215998-56-4/BI  
    (215998-56-4/RN)  
1 215998-58-6/BI  
    (215998-58-6/RN)  
1 215998-60-0/BI  
    (215998-60-0/RN)  
1 215998-62-2/BI  
    (215998-62-2/RN)  
1 215998-64-4/BI  
    (215998-64-4/RN)  
1 215998-66-6/BI  
    (215998-66-6/RN)
```

1 215998-68-8/BI
(215998-68-8/RN)
1 215998-70-2/BI
(215998-70-2/RN)
1 215998-72-4/BI
(215998-72-4/RN)
1 215998-74-6/BI
(215998-74-6/RN)
1 215998-76-8/BI
(215998-76-8/RN)
1 215998-78-0/BI
(215998-78-0/RN)
1 215998-80-4/BI
(215998-80-4/RN)
1 215998-82-6/BI
(215998-82-6/RN)
1 215998-84-8/BI
(215998-84-8/RN)
1 215998-86-0/BI
(215998-86-0/RN)
1 215998-88-2/BI
(215998-88-2/RN)
1 215998-90-6/BI
(215998-90-6/RN)
1 215998-92-8/BI
(215998-92-8/RN)
1 215998-94-0/BI
(215998-94-0/RN)
1 215998-96-2/BI
(215998-96-2/RN)
1 215998-98-4/BI
(215998-98-4/RN)
1 215999-00-1/BI
(215999-00-1/RN)
1 215999-02-3/BI
(215999-02-3/RN)
1 215999-04-5/BI
(215999-04-5/RN)
1 215999-06-7/BI
(215999-06-7/RN)
1 215999-08-9/BI
(215999-08-9/RN)
1 215999-10-3/BI
(215999-10-3/RN)
1 215999-12-5/BI
(215999-12-5/RN)
1 215999-14-7/BI
(215999-14-7/RN)
1 215999-16-9/BI
(215999-16-9/RN)
1 215999-18-1/BI
(215999-18-1/RN)
1 216885-10-8/BI
(216885-10-8/RN)
1 2368-84-5/BI
(2368-84-5/RN)
1 244122-00-7/BI
(244122-00-7/RN)
1 259131-75-4/BI
(259131-75-4/RN)
1 29927-14-8/BI
(29927-14-8/RN)

1 3306-62-5/BI
(3306-62-5/RN)
1 345970-47-0/BI
(345970-47-0/RN)
1 345970-48-1/BI
(345970-48-1/RN)
1 35203-91-9/BI
(35203-91-9/RN)
1 4392-54-5/BI
(4392-54-5/RN)
1 452-35-7/BI
(452-35-7/RN)
1 53297-68-0/BI
(53297-68-0/RN)
1 53297-69-1/BI
(53297-69-1/RN)
1 547-52-4/BI
(547-52-4/RN)
1 554-57-4/BI
(554-57-4/RN)
1 59-66-5/BI
(59-66-5/RN)
1 60154-06-5/BI
(60154-06-5/RN)
1 606-25-7/BI
(606-25-7/RN)
1 654-62-6/BI
(654-62-6/RN)
1 67472-44-0/BI
(67472-44-0/RN)
1 688805-64-3/BI
(688805-64-3/RN)
1 688805-66-5/BI
(688805-66-5/RN)
1 688805-68-7/BI
(688805-68-7/RN)
1 688805-70-1/BI
(688805-70-1/RN)
1 688805-72-3/BI
(688805-72-3/RN)
1 688805-74-5/BI
(688805-74-5/RN)
1 688805-76-7/BI
(688805-76-7/RN)
1 688805-78-9/BI
(688805-78-9/RN)
1 688805-80-3/BI
(688805-80-3/RN)
1 688805-82-5/BI
(688805-82-5/RN)
1 688805-84-7/BI
(688805-84-7/RN)
1 688805-86-9/BI
(688805-86-9/RN)
1 688805-87-0/BI
(688805-87-0/RN)
1 688805-89-2/BI
(688805-89-2/RN)
1 688805-91-6/BI
(688805-91-6/RN)
1 688805-93-8/BI
(688805-93-8/RN)

1 688805-97-2/BI
 (688805-97-2/RN)
 1 688805-99-4/BI
 (688805-99-4/RN)
 1 688806-01-1/BI
 (688806-01-1/RN)
 1 700378-86-5/BI
 (700378-86-5/RN)
 1 78160-85-7/BI
 (78160-85-7/RN)
 1 78160-87-9/BI
 (78160-87-9/RN)
 1 79783-03-2/BI
 (79783-03-2/RN)
 1 829-71-0/BI
 (829-71-0/RN)
 1 83439-56-9/BI
 (83439-56-9/RN)
 1 86029-46-1/BI
 (86029-46-1/RN)
 1 878502-00-2/BI
 (878502-00-2/RN)
 1 878502-01-3/BI
 (878502-01-3/RN)
 1 878502-02-4/BI
 (878502-02-4/RN)
 1 878502-03-5/BI
 (878502-03-5/RN)
 1 878502-04-6/BI
 (878502-04-6/RN)
 1 878502-05-7/BI
 (878502-05-7/RN)
 1 878502-06-8/BI
 (878502-06-8/RN)
 1 88615-09-2/BI
 (88615-09-2/RN)
 1 9001-03-0/BI
 (9001-03-0/RN)
 1 98-18-0/BI
 (98-18-0/RN)

L2

108 (138-39-6/BI OR 3523-95-3/BI OR 35303-76-5/BI OR 63-74-1/BI OR
 120-97-8/BI OR 120279-96-1/BI OR 121-30-2/BI OR 138-41-0/BI OR
 138890-62-7/BI OR 14949-00-9/BI OR 165668-41-7/BI OR 2153-13-1/BI
 OR 215998-40-6/BI OR 215998-42-8/BI OR 215998-44-0/BI OR 215998-
 46-2/BI OR 215998-48-4/BI OR 215998-50-8/BI OR 215998-52-0/BI OR
 215998-54-2/BI OR 215998-56-4/BI OR 215998-58-6/BI OR 215998-60-0
 /BI OR 215998-62-2/BI OR 215998-64-4/BI OR 215998-66-6/BI OR
 215998-68-8/BI OR 215998-70-2/BI OR 215998-72-4/BI OR 215998-74-6
 /BI OR 215998-76-8/BI OR 215998-78-0/BI OR 215998-80-4/BI OR
 215998-82-6/BI OR 215998-84-8/BI OR 215998-86-0/BI OR 215998-88-2
 /BI OR 215998-90-6/BI OR 215998-92-8/BI OR 215998-94-0/BI OR
 215998-96-2/BI OR 215998-98-4/BI OR 215999-00-1/BI OR 215999-02-3
 /BI OR 215999-04-5/BI OR 215999-06-7/BI OR 215999-08-9/BI OR
 215999-10-3/BI OR 215999-12-5/BI OR 215999-14-7/BI OR 215999-16-9
 /BI OR 215999-18-1/BI OR 216885-10-8/BI OR 2368-84-5/BI OR 244122
 -00-7/BI OR 259131-75-4/BI OR 2992

=> file caplus
 COST IN U.S. DOLLARS
 FULL ESTIMATED COST

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| 0.44 | 3.14 |

FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14
FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s 12
L3      22388 L2

=> s 12/thu
      22388 L2
      816051 THU/RL
L4      1169 L2/THU
      (L2 (L) THU/RL)

=> s cancer? or tumor? or neoplas?
      307106 CANCER?
      442741 TUMOR?
      464671 NEOPLAS?
L5      733490 CANCER? OR TUMOR? OR NEOPLAS?

=> s 14 (1) 15
L6      67 L4 (L) L5

=> s 16 not py>2002
      4389687 PY>2002
L7      18 L6 NOT PY>2002

=> d ibib 1-18

L7  ANSWER 1 OF 18  CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:  2003:153905  CAPLUS
DOCUMENT NUMBER:  138:265037
TITLE:  Indisulam Eisai
AUTHOR(S):  Supuran, Claudiu T.
CORPORATE SOURCE:  Universita degli Studi di Firenze, Dipartimento di
Chimica, Sesto Fiorentino, I-50019, Italy
SOURCE:  IDRugs (2002), 5(11), 1075-1079
CODEN:  IDRUFN; ISSN: 1369-7056
PUBLISHER:  PharmaPress Ltd.
DOCUMENT TYPE:  Journal; General Review
LANGUAGE:  English
REFERENCE COUNT:  33  THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

L7 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:875612 CAPLUS
DOCUMENT NUMBER: 138:395176
TITLE: E7070: a novel synthetic sulfonamide targeting the cell cycle progression for the treatment of cancer
AUTHOR(S): van Kesteren, Charlotte; Beijnen, Jos H.; Schellens, Jan H. M.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, The Netherlands Cancer Institute/Slotervaart Hospital, Amsterdam, 1066 EC, Neth.
SOURCE: Anti-Cancer Drugs (2002), 13(10), 989-997
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:804494 CAPLUS
DOCUMENT NUMBER: 138:362245
TITLE: An excretion balance and pharmacokinetic study of the novel anticancer agent E7070 in cancer patients
AUTHOR(S): van den Bongard, H. J. G. Desiree; Pluim, Dick; Rosing, Hilde; Nan-Offeringa, Lianda; Schot, Margaret; Ravic, Miroslav; Schellens, Jan H. M.; Beijnen, Jos H.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart Hospital/The Netherlands Cancer Institute, Amsterdam, 1066 EC, Neth.
SOURCE: Anti-Cancer Drugs (2002), 13(8), 807-814
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:708041 CAPLUS
DOCUMENT NUMBER: 137:241842
TITLE: Phase I and pharmacokinetic study of E7070, a novel chloroindolyl sulfonamide cell-cycle inhibitor, administered as a one-hour infusion every three weeks in patients with advanced cancer
AUTHOR(S): Raymond, E.; ten Bokkel Huinink, W. W.; Taieb, J.; Beijnen, J. H.; Faivre, S.; Wanders, J.; Ravic, M.; Fumoleau, P.; Armand, J. P.; Schellens, J. H. M.
CORPORATE SOURCE: European Organization for the Research and Treatment of Cancer Early Clinical Study Group, Institut Gustave-Roussy, Villejuif, 94805, Fr.
SOURCE: Journal of Clinical Oncology (2002), 20(16), 3508-3521
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:603243 CAPLUS
DOCUMENT NUMBER: 138:163096

TITLE: Acetazolamide suppresses tumor metastasis and related protein expression in mice bearing Lewis lung carcinoma

AUTHOR(S): Xiang, Yang; Ma, Bing; Li, Tao; Yu, He-Ming; Li, Xue-Jun

CORPORATE SOURCE: Department of Pharmacology, School of Basic Medical Sciences, Peking University, Beijing, 100083, Peop. Rep. China

SOURCE: Acta Pharmacologica Sinica (2002), 23(8), 745-751

PUBLISHER: CODEN: APSCG5; ISSN: 1671-4083 Science Press

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:346758 CAPLUS
DOCUMENT NUMBER: 138:61168
TITLE: Transnasal chemotherapy of the brain tumor utilizing the direct transport pathway between the nose and the cerebrospinal fluid

AUTHOR(S): Sakane, T.; Yamashita, S.; Yata, N.; Sezaki, H.; Tokunaga, Y.; Shibata, S.

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Setsunan University, Osaka, 573-0101, Japan

SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 225-226. Controlled Release Society: Minneapolis, Minn.

DOCUMENT TYPE: CODEN: 69CNY8 Conference

LANGUAGE: English

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:724918 CAPLUS
DOCUMENT NUMBER: 136:395443
TITLE: Mechanisms of action of the novel sulfonamide anticancer agent E7070 on cell cycle progression in human non-small cell lung cancer cells

AUTHOR(S): Fukuoka, Kazuya; Usuda, Jitsuo; Iwamoto, Yasuo; Fukumoto, Hisao; Nakamura, Takashi; Yoneda, Takahiro; Narita, Nobuhiro; Saijo, Nagahiro; Nishio, Kazuto

CORPORATE SOURCE: Pharmacology Division, National Cancer Center Research Institute, Tokyo, Japan

SOURCE: Investigational New Drugs (2001), 19(3), 219-227

PUBLISHER: CODEN: INNDDK; ISSN: 0167-6997 Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:455364 CAPLUS
DOCUMENT NUMBER: 133:38216
TITLE: Preparation of sulfanilamide derivative for diagnosis and treatment of tumor

INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo
PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop.
Rep. China
SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, 24 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| CN 1214264 | A | 19990421 | CN 1997-106657 | 19971015 |
| PRIORITY APPLN. INFO.: | | | CN 1997-106657 | 19971015 |

L7 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:176258 CAPLUS
DOCUMENT NUMBER: 132:303120
TITLE: Carbonic anhydrase inhibitor suppresses invasion of renal cancer cells in vitro
AUTHOR(S): Parkkila, Seppo; Rajaniemi, Hannu; Parkkila, Anna-Kaisa; Kivelä, Jyrki; Waheed, Abdul; Pastorekova, Silvia; Pastorek, Jaromír; Sly, William S.
CORPORATE SOURCE: Departments of Anatomy and Cell Biology, Clinical Chemistry, 90014 University of Oulu, Finland
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(5), 2220-2224
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:712802 CAPLUS
DOCUMENT NUMBER: 132:227295
TITLE: Transnasal delivery of anticancer drugs to the brain tumor: a new strategy for brain tumor chemotherapy
AUTHOR(S): Shingaki, Tomotaka; Sakane, Toshiyasu; Yamashita, Shinji; Sezaki, Hitoshi; Tokunaga, Yoshiharu; Shibata, Shobu
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Setsunan University, Setsunan, Japan
SOURCE: Drug Delivery System (1999), 14(5), 365-371
CODEN: DDSYEI; ISSN: 0913-5006
PUBLISHER: Nippon DDS Gakkai Jimukyoku
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:773985 CAPLUS
DOCUMENT NUMBER: 130:248135
TITLE: Chinese herbs nephropathy-associated slimming regimen induces tumors in the forestomach but no interstitial nephropathy in rats
AUTHOR(S): Cosyns, Jean-Pierre; Goebels, Rose-Marie; Liberton, Vinciane; Schmeiser, Heinz H.; Bieler, Christian A.; Bernard, Alfred M.
CORPORATE SOURCE: Cliniques Universitaires St. Luc, Department of Pathology, ANPS 1712 Catholic University of Louvain Medical School, Brussels, B-1200, Belg.

SOURCE: Archives of Toxicology (1998), 72(11), 738-743
 CODEN: ARTODN; ISSN: 0340-5761
 PUBLISHER: Springer-Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:750281 CAPLUS
 DOCUMENT NUMBER: 130:208022
 TITLE: Carbonic anhydrase II as a marker of malignant features for colorectal cancer
 AUTHOR(S): Bekku, Shinya; Yamamoto, Tetsuhisa; Mochizuki, Hidetaka
 CORPORATE SOURCE: Department of First Surgery, National Defence Medical College, Japan
 SOURCE: Igaku no Ayumi (1998), 186(12), 891-892
 CODEN: IGAYAY; ISSN: 0039-2359
 PUBLISHER: Ishiyaku Shuppan
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese

L7 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1998:640364 CAPLUS
 DOCUMENT NUMBER: 129:242205
 TITLE: Rapid method of cancer diagnosis by measuring activation of carbonic anhydrase II by blood serum tumor markers
 INVENTOR(S): Puscas, Ioan; Puscas, Iuliana Carmen; Coltau, Marcela; Domuta, Gabriela; Baican, Michael Rom.
 PATENT ASSIGNEE(S):
 SOURCE: PCT Int. Appl., 23 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9841649 | A2 | 19980924 | WO 1998-EP1465 | 19980313 |
| WO 9841649 | A3 | 19981223 | | |
| W: AL, AU, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JE, KE, KR, LC, LK, LR, LT, LV, MG, MN, MX, NC, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| RO 114835 | B3 | 19990730 | RO 1997-502 | 19970317 |
| CA 2284632 | AA | 19980924 | CA 1998-2284632 | 19980313 |
| AU 9867298 | A1 | 19981012 | AU 1998-67298 | 19980313 |
| AU 738843 | B2 | 20010927 | | |
| EP 972072 | A2 | 20000119 | EP 1998-912475 | 19980313 |
| EP 972072 | B1 | 20011121 | | |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, SI, LT, FI, RO | | | | |
| BR 9808373 | A | 20000523 | BR 1998-8373 | 19980313 |
| NZ 337850 | A | 20010727 | NZ 1998-337850 | 19980313 |
| JP 2001524815 | T2 | 20011204 | JP 1998-540117 | 19980313 |
| AT 209256 | E | 20011215 | AT 1998-912475 | 19980313 |

| | | | | |
|------------------------|---|---------------------------|---|--------------------------------------|
| PRIORITY APPLN. INFO.: | A | 20000531 | MX 1999-8488
RO 1997-502
WO 1998-EP1465 | 19990915
A 19970317
W 19980313 |
| L7 ANSWER 14 OF 18 | CAPLUS | COPYRIGHT 2006 ACS on STN | | |
| ACCESSION NUMBER: | 1998:465838 | CAPLUS | | |
| DOCUMENT NUMBER: | 129:228986 | | | |
| TITLE: | Immunohistochemical study of colorectal tumors for expression of a novel transmembrane carbonic anhydrase, MN/CA IX, with potential value as a marker of cell proliferation | | | |
| AUTHOR(S): | Saarnio, Juha; Parkkila, Seppo; Parkkila, Anna-Kaisa; Haukipuro, Kari; Pastorekova, Silvia; Pastorek, Jaromir; Kairaluoma, Matti I.; Karttunen, Tuomo J. | | | |
| CORPORATE SOURCE: | Department of Surgery, University of Oulu, Oulu, SF-90220, Finland | | | |
| SOURCE: | American Journal of Pathology (1998), 153(1), 279-285 | | | |
| PUBLISHER: | CODEN: AJPA4; ISSN: 0002-9440 | | | |
| DOCUMENT TYPE: | American Society for Investigative Pathology | | | |
| LANGUAGE: | Journal | | | |
| REFERENCE COUNT: | English | | | |
| | 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | | |

| | | | | |
|-------------------------|--|---------------------------|--|--|
| L7 ANSWER 15 OF 18 | CAPLUS | COPYRIGHT 2006 ACS on STN | | |
| ACCESSION NUMBER: | 1998:334002 | CAPLUS | | |
| DOCUMENT NUMBER: | 129:51697 | | | |
| TITLE: | The immunoassay of carbonic anhydrase for screening colon cancer | | | |
| INVENTOR(S): | Yokoyama, Yukio | | | |
| PATENT ASSIGNEE(S): | Yokoyama, Yukio, Japan | | | |
| SOURCE: | Jpn. Kokai Tokkyo Koho, 2 pp. | | | |
| DOCUMENT TYPE: | CODEN: JKXXAF | | | |
| LANGUAGE: | Patent | | | |
| FAMILY ACC. NUM. COUNT: | Japanese | | | |
| PATENT INFORMATION: | 1 | | | |

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10132822 | A2 | 19980522 | JP 1996-327494 | 19961101 |
| PRIORITY APPLN. INFO.: | | | JP 1996-327494 | 19961101 |

| | | | | |
|-------------------------|---|---------------------------|--|--|
| L7 ANSWER 16 OF 18 | CAPLUS | COPYRIGHT 2006 ACS on STN | | |
| ACCESSION NUMBER: | 1997:537618 | CAPLUS | | |
| DOCUMENT NUMBER: | 127:130994 | | | |
| TITLE: | Use of carbonic anhydrase inhibitors to prepare a drug for cancer therapy | | | |
| INVENTOR(S): | Lang, Hans Jochen; Gericke, Dietmar | | | |
| PATENT ASSIGNEE(S): | Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke, Dietmar | | | |
| SOURCE: | PCT Int. Appl., 16 pp. | | | |
| DOCUMENT TYPE: | CODEN: PIXXD2 | | | |
| LANGUAGE: | Patent | | | |
| FAMILY ACC. NUM. COUNT: | German | | | |
| PATENT INFORMATION: | 1 | | | |

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 9725039 | A1 | 19970717 | WO 1996-EP5793 | 19961220 |
| W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, | | | | |

IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN,
 MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN
 RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
 IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
 MR, NE, SN, TD, TG
 DE 19600721 A1 19970717 DE 1996-19600721 19960112
 AU 9713046 A1 19970801 AU 1997-13046 19961220
 PRIORITY APPLN. INFO.: DE 1996-19600721 A 19960112
 WO 1996-EP5793 W 19961220

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1996:262841 CAPLUS
 DOCUMENT NUMBER: 124:314359
 TITLE: A marker antigen for non-small cell lung cancer and a
 cDNA encoding it and their uses
 INVENTOR(S): Torczynski, Richard M.; Bollon, Arthur P.
 PATENT ASSIGNEE(S): Cytoclonal Pharmaceutics, Inc., USA
 SOURCE: PCT Int. Appl., 86 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 9602552 | A1 | 19960201 | WO 1995-US9145 | 19950719 |
| W: AU, BR, CA, CN, FI, JP, KE, KR, LK, MN, NO, NZ, PL, RU, UA, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5589579 | A | 19961231 | US 1994-276919 | 19940719 |
| CA 2195403 | AA | 19960201 | CA 1995-2195403 | 19950719 |
| AU 9533592 | A1 | 19960216 | AU 1995-33592 | 19950719 |
| AU 700915 | B2 | 19990114 | | |
| EP 804451 | A1 | 19971105 | EP 1995-930093 | 19950719 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, NC, PT, IE | | | | |
| BR 9508417 | A | 19971118 | BR 1995-8417 | 19950719 |
| JP 10503087 | T2 | 19980324 | JP 1995-505257 | 19950719 |
| US 5773579 | A | 19980630 | US 1997-776088 | 19970121 |
| PRIORITY APPLN. INFO.: | | | US 1994-276919 | A 19940719 |
| | | | WO 1995-US9145 | W 19950719 |

L7 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1970:475517 CAPLUS
 DOCUMENT NUMBER: 73:75517
 TITLE: Oncostatic activities of some fluoro compounds against
 Ehrlich carcinoma in mice
 AUTHOR(S): Nakahara, Toru; Miyamoto, Fumiko; Kayama, Tokihiko
 CORPORATE SOURCE: Wakayama Univ., Wakayama, Japan
 SOURCE: Wakayama Daigaku Gakugeigakubu Kiyo, Shizenkagaku
 (1968), No. 18, 15-17
 CODEN: WDGKAJ, ISSN: 0507-8318
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese

=> d his

(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
 L1 1 S US 20040146955/PN
 SEL RN

L2 FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
108 S E1-E108

L3 FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
22388 S L2
L4 1169 S L2/THU
L5 733490 S CANCER? OR TUMOR? OR NEOPLAS?
L6 67 S L4 (L) L5
L7 18 S L6 NOT PY>2002

=> s l7 and sulfonam?
33901 SULFONAM?
L8 5 L7 AND SULFONAM?

=> d ibib 1-5

L8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:153905 CAPLUS
DOCUMENT NUMBER: 138:265037
TITLE: Indisulam Eisai
AUTHOR(S): Supuran, Claudiu T.
CORPORATE SOURCE: Universita degli Studi di Firenze, Dipartimento di
Chimica, Sesto Fiorentino, I-50019, Italy
SOURCE: IDrugs (2002), 5(11), 1075-1079
CODEN: IDRUFN; ISSN: 1369-7056
PUBLISHER: PharmaPress Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:875612 CAPLUS
DOCUMENT NUMBER: 138:395176
TITLE: E7070: a novel synthetic sulfonamide
targeting the cell cycle progression for the treatment
of cancer
AUTHOR(S): van Kesteren, Charlotte; Beijnen, Jos H.; Schellens,
Jan H. M.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, The
Netherlands Cancer Institute/Slotervaart Hospital,
Amsterdam, 1066 EC, Neth.
SOURCE: Anti-Cancer Drugs (2002), 13(10), 989-997
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:804494 CAPLUS
DOCUMENT NUMBER: 138:362245
TITLE: An excretion balance and pharmacokinetic study of the
novel anticancer agent E7070 in cancer patients
AUTHOR(S): van den Bongard, H. J. G. Desiree; Pluim, Dick;
Rosing, Hilde; Nan-Offeringa, Lianda; Schot, Margaret;
Ravic, Miroslav; Schellens, Jan H. M.; Beijnen, Jos H.
CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart
Hospital/The Netherlands Cancer Institute, Amsterdam,
1066 EC, Neth.

SOURCE: Anti-Cancer Drugs (2002), 13(8), 807-814
CODEN: ANTDEV; ISSN: 0959-4973
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:708041 CAPLUS
DOCUMENT NUMBER: 137:241842
TITLE: Phase I and pharmacokinetic study of E7070, a novel chloroindolyl sulfonamide cell-cycle inhibitor, administered as a one-hour infusion every three weeks in patients with advanced cancer
AUTHOR(S): Raymond, E.; ten Bokkel Huinink, W. W.; Taieb, J.; Beijnen, J. H.; Faiivre, S.; Wanders, J.; Ravic, M.; Fumoleau, P.; Armand, J. P.; Schellens, J. H. M.
CORPORATE SOURCE: European Organization for the Research and Treatment of Cancer Early Clinical Study Group, Institut Gustave-Roussy, Villejuif, 94805, Fr.
SOURCE: Journal of Clinical Oncology (2002), 20(16), 3508-3521
CODEN: JCONDN; ISSN: 0732-183X
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:724918 CAPLUS
DOCUMENT NUMBER: 136:395443
TITLE: Mechanisms of action of the novel sulfonamide anticancer agent E7070 on cell cycle progression in human non-small cell lung cancer cells
AUTHOR(S): Fukuoka, Kazuya; Usuda, Jitsuo; Iwamoto, Yasuo; Fukumoto, Hisao; Nakamura, Takashi; Yoneda, Takahiro; Narita, Nobuhiro; Saijo, Nagahiro; Nishio, Kazuto
CORPORATE SOURCE: Pharmacology Division, National Cancer Center Research Institute, Tokyo, Japan
SOURCE: Investigational New Drugs (2001), 19(3), 219-227
CODEN: INNDK; ISSN: 0167-6997
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
L1 1 S US 20040146955/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
L2 108 S E1-E108

FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
L3 22388 S L2

L4 1169 S L2/THU
 L5 733490 S CANCER? OR TUMOR? OR NEOPLAS?
 L6 67 S L4 (L) L5
 L7 18 S L6 NOT PY>2002
 L8 5 S L7 AND SULFONAM?

=> d 17 ibib abs kwic 8, 9, 16

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2000:455364 CAPLUS
 DOCUMENT NUMBER: 133:38216
 TITLE: Preparation of sulfanilamide derivative for diagnosis
 and treatment of tumor
 INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo
 PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop.
 Rep. China
 SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu, 24 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| CN 1214264 | A | 19990421 | CN 1997-106657 | 19971015 |
| PRIORITY APPLN. INFO.: | | | CN 1997-106657 | 19971015 |
| AB The sulfanilamide derivative R1-1,4-phenylene-SO2-N(R2)-L-R3 (R1 = NH2, CH3, or CH3CONH, etc.; R2 = pyrimidinyl, pyrazinyl, or other heterocycle; L = polyglycol, methyleneformylhexanediamine, or methylenecarboxylaminohexanoic acid, etc.; and R3 = anti-tumor drug, or complexant for 111In, 99mTc, 188Re, 186Re, 90Y, or 67Cu, etc.) is used for diagnosis and treatment of tumor. The sulfanilamide intermediate (I) (N-acetylsulfadiazine-PEG-isopropanol-butanediamine) is prepared by dissolving sulfadiazine in NaOH solution, regulating pH to 10-11, precipitating with ethanol, polymerizing with epoxyethane at 85° for 3-5 d, terminating with methanol to obtain N-acetylsulfadiazine-PEG, acetylating with acetic anhydride in NaHCO3 buffer solution (pH 9.0-10.0), allowing to react with chloromethylloxirane at 50° for 3 h, and substituting with butanediamine in the presence of DCCI. The sulfanilamide intermediate (II) (N-acetylsulfadiazine-methylenecarboxylhexanediamine) is prepared by acetylating sulfadiazine with acetic anhydride for 30 min, dissolving in NaOH solution, condensation with iodoacetic acid at 55° and pH 10-11 for 5 h, substituting with hexanediamine in the presence of DCCI and in THF at 4° for 2, and extracting with butanol. The sulfanilamide derivative is prepared by dissolving (I) in chloroform, condensation with cyclic DTPA for 24 h, precipitating with EtOAc, and recrystg. with chloroform or EtOAc. The sulfanilamide derivative-drug composite is prepared by condensation of the sulfanilamide derivative with activated drug in NaHCO3 buffer solution (pH 9.0) for 30 min, and separating with Sephadex G10 or LH20 column chromatog. Sulfadiazine may be replaced by sulfapyrazine. The activated drug is selected from carboxy-activated methotrexate, pentanedioic acid-activated mitomycin C, and pentanedioic acid-activated adriamycin. | | | | |
| IT 63-74-1D, Sulfanilamide, antitumor derivs. 10098-91-6D, 90Y, sulfanilamide complex, biological studies 14133-76-7D, Technetium, isotope of mass 99, sulfanilamide complex, biological studies 14378-26-8D, 188Re, sulfanilamide complex, biological studies 14998-63-1D, 186Re, sulfanilamide complex, biological studies 15750-15-9D, 111In, sulfanilamide complex, biological studies | | | | |

15757-86-5D, 67Cu, sulfanilamide complex, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)

L7 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:176258 CAPLUS
DOCUMENT NUMBER: 132:303120
TITLE: Carbonic anhydrase inhibitor suppresses invasion of renal cancer cells in vitro
AUTHOR(S): Parkkila, Seppo; Rajaniemi, Hannu; Parkkila, Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova, Silvia; Pastorek, Jaromir; Sly, William S.
CORPORATE SOURCE: Departments of Anatomy and Cell Biology, Clinical Chemistry, 90014 University of Oulu, Finland
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(5), 2220-2224
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Acidification of the extracellular milieu of malignant tumors is reported to increase the invasive behavior of cancer cells. In normal tissues, production of acid is catalyzed by carbonic anhydrases (CAs), some of which are known to be overexpressed in certain cancers. To investigate the functional role of CA activity in such cancer cells, the authors analyzed the effect of acetazolamide, a potent CA inhibitor, on the invasive capacity of four renal carcinoma cell lines (Caki-1, Caki-2, ACHN, and A-498). The authors found that 10 μ M acetazolamide inhibited the relative invasion rate of these cell lines between 18-74%. The Caki-2 and ACHN cell lines displayed the highest responsiveness, and their responses clearly depended on the acetazolamide concentration in the culture medium. Immunocytochem. and Western blotting results identified the presence of CA isoenzyme II in the cytoplasm of all four cell lines and CA XII on the plasma membrane in three of four cell lines. Because acetazolamide alone reduced invasiveness of these cancer cells in vitro, the authors conclude that the CAs overexpressed in these renal cancer cells contribute to invasiveness, at least in vitro, and suggest that CA inhibitors may also reduce invasiveness in other tumors that overexpress one or more CAs.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(role of carbonic anhydrase in invasion of renal cancer cells in vitro and possible therapeutic role of carbonic anhydrase inhibitor acetazolamide)

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:537618 CAPLUS
DOCUMENT NUMBER: 127:130994
TITLE: Use of carbonic anhydrase inhibitors to prepare a drug for cancer therapy
INVENTOR(S): Lang, Hans Jochen; Gericke, Dietmar
PATENT ASSIGNEE(S): Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke, Dietmar
SOURCE: PCT Int. Appl., 16 pp.
DOCUMENT TYPE: Patent
CODEN: PIXXD2

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|------------------|------------|
| WO 9725039 | A1 | 19970717 | WO 1996-EP5793 | 19961220 |
| W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| DE 19600721 | A1 | 19970717 | DE 1996-19600721 | 19960112 |
| AU 9713046 | A1 | 19970801 | AU 1997-13046 | 19961220 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19600721 | A 19960112 |
| | | | WO 1996-EP5793 | W 19961220 |
| AB Carbonic anhydrase inhibitors such as acetazolamide are useful, alone or in association with chemotherapeutic agents, phys. treatments such as radiation therapy, or immunomodulators, for treatment of cancer (no data). | | | | |
| IT 59-66-5, Acetazolamide | | | | |
| RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) | | | | |
| (use of carbonic anhydrase inhibitors for cancer therapy) | | | | |

=> file reg
COST IN U.S. DOLLARS
FULL ESTIMATED COST

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| 51.27 | 54.41 |

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
CA SUBSCRIBER PRICE

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| -2.25 | -2.25 |

FILE 'REGISTRY' ENTERED AT 12:50:27 ON 28 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3
DICTIONARY FILE UPDATES: 27 SEP 2006 HIGHEST RN 909000-49-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s 59-66-5

L9 1 59-66-5
 (59-66-5/RN)

=> s 19 and 12

L10 1 L9 AND L2

=> d hitstr
'HITSTR' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

| | |
|--------|---|
| REG | - RN |
| SAM | - Index Name, MF, and structure - no RN |
| FIDE | - All substance data, except sequence data |
| IDE | - FIDE, but only 50 names |
| SQIDE | - IDE, plus sequence data |
| SQIDE3 | - Same as SQIDE, but 3-letter amino acid codes are used |
| SQD | - Protein sequence data, includes RN |
| SQD3 | - Same as SQD, but 3-letter amino acid codes are used |
| SQN | - Protein sequence name information, includes RN |
| CALC | - Table of calculated properties |
| EPROP | - Table of experimental properties |
| PROP | - EPROP and CALC |

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

| | |
|------|--|
| ABS | -- Abstract |
| APPS | -- Application and Priority Information |
| BIB | -- CA Accession Number, plus Bibliographic Data |
| CAN | -- CA Accession Number |
| CBIB | -- CA Accession Number, plus Bibliographic Data (compressed) |
| IND | -- Index Data |
| IPC | -- International Patent Classification |
| PATS | -- PI, SO |
| STD | -- BIB, IPC, and NCL |

| | |
|------|------------------------------------|
| IABS | -- ABS, indented, with text labels |
| IBIB | -- BIB, indented, with text labels |
| ISTD | -- STD format, indented |

| | |
|-------|--|
| OBIB | ----- AN, plus Bibliographic Data (original) |
| OIBIB | ----- OBIB, indented with text labels |

| | |
|-------|--------------------------|
| SBIB | ----- BIB, no citations |
| SIBIB | ----- IBIB, no citations |

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):end

```
=> file caplus
COST IN U.S. DOLLARS                               SINCE FILE      TOTAL
                                                    ENTRY        SESSION
FULL ESTIMATED COST                           0.44          54.85

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                    ENTRY        SESSION
CA SUBSCRIBER PRICE                            0.00          -2.25
```

FILE 'CAPLUS' ENTERED AT 12:51:02 ON 28 SEP 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14
FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> d his

(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006
L1 1 S US 20040146955/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006
L2 108 S E1-E108

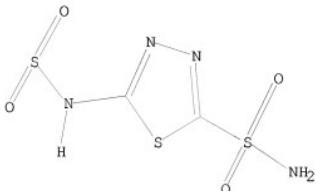
```
FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006
L3      22388 S L2
L4      1169 S L2/THU
L5      733490 S CANCER? OR TUMOR? OR NEOPLAS?
L6      67 S L4 (L) L5
L7      18 S L6 NOT PY>2002
L8      5 S L7 AND SUICIDE?M2
```

FILE 'REGISTRY' ENTERED AT 12:50:27 ON 28 SEP 2006
L9 1 S 59-66-5
L10 1 S L9 AND L2

FILE 'CARLIUS' ENTERED AT 12:51:02 ON 28 SEP 2006

=> d 17 hitstr 1-18

L7 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, Indisulam
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(indisulam for potential treatment of cancer)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)



L7 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(E7070, a novel synthetic sulfonamide targeting the cell cycle progression for treatment of cancer)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 2 in file .gra /

L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: ADV (Adverse effect, including toxicity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(E7070 excretion and pharmacokinetics in cancer patients)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 3 in file .gra /

L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacokinetic study of E7070 infusion, novel chloroindolyl sulfonamide cell-cycle inhibitor, in advanced cancer patients)

RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 4 in file .gra /

L7 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acetazolamide suppresses tumor metastasis and related protein expression in mice bearing Lewis lung carcinoma)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 5 in file .gra /

L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(brain tumor chemotherapy using nasal delivery of drug to cerebrospinal fluid: effect of excipients)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 6 in file .gra /

L7 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 165668-41-7, E7070
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mechanisms of action of novel sulfonamide anticancer agent E7070 on cell cycle progression in human non-small cell lung cancer cells)
RN 165668-41-7 CAPLUS
CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 7 in file .gra /

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 63-74-1D, Sulfanilamide, antitumor derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)
RN 63-74-1 CAPLUS
CN Benzenesulfonamide, 4-amino- (9CI) (CA INDEX NAME)

/ Structure 8 in file .gra /

L7 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (role of carbonic anhydrase in invasion of renal cancer cells
 in vitro and possible therapeutic role of carbonic anhydrase inhibitor
 acetazolamide)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 9 in file .gra /

L7 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (transnasal delivery of anticancer drugs to brain tumor)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 10 in file .gra /

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (Chinese herbs nephropathy-associated slimming regimen induces
 tumors in the forestomach but no interstitial nephropathy in
 rats)
RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX NAME)

/ Structure 11 in file .gra /

L7 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence);
USES (Uses)
 (II; carbonic anhydrase II as a marker of malignant features for
 colorectal cancer)
RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonic anhydrase
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical

study); BIOL (Biological study); USES (Uses)
(II; rapid method of cancer diagnosis by measuring activation
of carbonic anhydrase II by blood serum tumor markers)

RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonic anhydrase
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence);
USES (Uses)
(isoenzyme IX; colorectal tumors expression of transmembrane
carbonic anhydrase, MN/CA IX, with potential value as marker of cell
proliferation in human)

RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonate anhydrase
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical
study); BIOL (Biological study); USES (Uses)
(fecal; immunoassay of carbonic anhydrase for screening colon
cancer)

RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 59-66-5, Acetazolamide
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)
(use of carbonic anhydrase inhibitors for cancer therapy)

RN 59-66-5 CAPLUS
CN Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX
NAME)

/ Structure 12 in file .gra /

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 9001-03-0, Carbonic anhydrase
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as marker for non-small cell lung cancer; marker antigen for
non-small cell lung cancer and cDNA encoding it and their
uses)

RN 9001-03-0 CAPLUS
CN Dehydratase, carbonate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT 654-62-6
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)

(neoplasm inhibition by)
RN 654-62-6 CAPLUS
CN 1,3-Benzene-disulfonamide, 4-amino-6-(trifluoromethyl)- (9CI) (CA INDEX
NAME)

/ Structure 13 in file .gra /

=> d 17 ibib abs hitstr 8

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:455364 CAPLUS
DOCUMENT NUMBER: 133:38216
TITLE: Preparation of sulfanilamide derivative for diagnosis
and treatment of tumor
INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo
PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop.
Rep. China
SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, 24 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| CN 1214264 | A | 19990421 | CN 1997-106657 | 19971015 |
| PRIORITY APPLN. INFO.: | | | CN 1997-106657 | 19971015 |
| AB The sulfanilamide derivative R1-1,4-phenylene-SO ₂ -N(R2)-L-R3 (R1 = NH ₂ , CH ₃ , or CH ₃ CONH, etc.; R2 = pyrimidinyl, pyrazinyl, or other heterocycle; L = polyglycol, methyleneformylhexanediamine, or methylenecarbonylaminohexanoic acid, etc.; and R3 = anti-tumor drug, or complexant for ¹¹¹ In, ^{99m} Tc, ¹⁸⁸ Re, ¹⁸⁶ Re, ⁹⁰ Y, or ⁶⁷ Cu, etc.) is used for diagnosis and treatment of tumor. The sulfanilamide intermediate (I) (N-acetylsulfadiazine-PEG-isopropanol-butanediamine) is prepared by dissolving sulfadiazine in NaOH solution, regulating pH to 10-11, precipitating with ethanol, polymerizing with epoxyethane at 85° for 3-5 d, terminating with methanol to obtain N-acetylsulfadiazine-PEG, acetylating with acetic anhydride in NaHCO ₃ buffer solution (pH 9.0-10.0), allowing to react with chloromethyloxirane at 50° for 3 h, and substituting with butanediamine in the presence of DCCI. The sulfanilamide intermediate (II) (N-acetylsulfadiazine-methylene-carboxyhexanediamine) is prepared by acetylating sulfadiazine with acetic anhydride for 30 min, dissolving in NaOH solution, condensation with iodoacetic acid at 55° and pH 10-11 for 5 h, substituting with hexanediamine in the presence of DCCI and in THF at 4° for 2, and extracting with butanol. The sulfanilamide derivative is prepared by dissolving (I) in chloroform, condensation with cyclic DTPA for 24 h, precipitating with EtOAc, and recrystg. with chloroform or EtOAc. The sulfanilamide derivative-drug composite is prepared by condensation of the sulfanilamide derivative with activated drug in NaHCO ₃ buffer solution (pH 9.0) for 30 min, and separating with Sephadex G10 or LH20 column chromatog. Sulfadiazine may be replaced by sulfapyrazine. The activated drug is selected from carboxy-activated methotrexate, pentanedioic acid-activated mitomycin C, and pentanedioic acid-activated adriamycin. | | | | |
| IT 63-74-1D, Sulfanilamide, antitumor derivs. | | | | |
| RL: BAC (Biological activity or effector, except adverse); BSU (Biological | | | | |

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)
RN 63-74-1 CAPLUS
CN Benzenesulfonamide, 4-amino- (9CI) (CA INDEX NAME)

/ Structure 14 in file .gra /

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 39.41 | 94.26 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -0.75 | -3.00 |

STN INTERNATIONAL LOGOFF AT 12:53:26 ON 28 SEP 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * Welcome to STN International * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 OCT 23 The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 4 OCT 30 CHEMLIST enhanced with new search and display field
NEWS 5 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 6 NOV 10 CA/CAplus F-Term thesaurus enhanced
NEWS 7 NOV 10 STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8 NOV 20 CA/CAplus to MARPAT accession number crossover limit increased to 50,000

NEWS 9 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 10 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 11 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12 DEC 14 GBFULL and FFRFULL enhanced with IPC 8 features and functionality
NEWS 13 DEC 18 CA/CPlus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 14 DEC 18 CA/CPlus patent kind codes updated
NEWS 15 DEC 18 MARPAT to CA/CPlus accession number crossover limit increased to 50,000
NEWS 16 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 17 DEC 27 CA/CPlus enhanced with more pre-1907 records
NEWS 18 JAN 08 CHEMIST enhanced with New Zealand Inventory of Chemicals
NEWS 19 JAN 16 CA/CPlus Company Name Thesaurus enhanced and reloaded
NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 21 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22 JAN 22 CA/CPlus updated with revised CAS roles
NEWS 23 JAN 22 CA/CPlus enhanced with patent applications from India
NEWS 24 JAN 29 PHAR reloaded with new search and display fields
NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 17:01:43 ON 31 JAN 2007

=> file reg
COST IN U.S. DOLLARS
SINCE FILE ENTRY SESSION
0.21 0.21
FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 17:01:52 ON 31 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JAN 2007 HIGHEST RN 918865-48-2
DICTIONARY FILE UPDATES: 30 JAN 2007 HIGHEST RN 918865-48-2

New CAS Information Use Policies. enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

```
=> s acetazolamide/cn
L1          1 ACETAZOLAMIDE/CN

=> file caplus
COST IN U.S. DOLLARS                               SINCE FILE      TOTAL
                                                    ENTRY        SESSION
FULL ESTIMATED COST                           5.40           5.61
```

FILE 'CAPLUS' ENTERED AT 17:02:23 ON 31 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 31 Jan 2007 VOL 146 ISS 6
FILE LAST UPDATED: 30 Jan 2007 (20070130/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s l1/dgn
      2763 L1
      73491 DGN/RL
L2          11 L1/DGN
                  (L1 (L) DGN/RL)

=> s l1
L3          2763 L1

=> s tumor? or cancer? or neoplas?
      456608 TUMOR?
      319712 CANCER?
      479213 NEOPLAS?
L4          756547 TUMOR? OR CANCER? OR NEOPLAS?

=> s l3 (L) 14
L5          37 L3 (L) L4
```

=> s 15 and 12
L6 0 L5 AND L2

=> s sulfonamid?
L7 34242 SULFONAMID?

=> s 17 (L) 14
L8 672 L7 (L) L4

=> s diagnos?
L9 275619 DIAGNOS?

=> s 19 and 18
L10 22 L9 AND L8

=> s carbonic anhydrase
44312 CARBONIC
1 CARBONICS
44313 CARBONIC
(CARBONIC OR CARBONICS)
12249 ANHYDRASE
713 ANHYDRASES
12291 ANHYDRASE
(ANHYDRASE OR ANHYDRASES)
L11 12141 CARBONIC ANHYDRASE
(CARBONIC(W)ANHYDRASE)

=> s 111 and 12
L12 0 L11 AND L2

=> s 112 and 13
L13 0 L12 AND L3

=> s 111 and 13
L14 1069 L11 AND L3

=> s 114 and 14
L15 45 L14 AND L4

=> s 114 and 15
L16 13 L14 AND L5

=> s 116 not py>2002
4850131 PY>2002
L17 4 L16 NOT PY>2002

=> d ibib 1-4

L17 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:176258 CAPLUS
DOCUMENT NUMBER: 132:303120
TITLE: Carbonic anhydrase inhibitor
suppresses invasion of renal cancer cells in vitro
AUTHOR(S): Parkkila, Seppo; Rajaniemi, Hannu; Parkkila,
Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova,
Barbara; Pastorek, Jaromir; Sly, William S.
COPORATE SOURCE: Departments of Anatomy and Cell Biology, Clinical
Chemistry, 90014 University of Oulu, Finland
SOURCE: Proceedings of the National Academy of Sciences of the
United States of America (2000), 97(5), 2220-2224
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:537618 CAPLUS
DOCUMENT NUMBER: 127:130994
TITLE: Use of carbonic anhydrase inhibitors to prepare a drug for cancer therapy
INVENTOR(S): Lang, Hans Jochen; Gericke, Dietmar
PATENT ASSIGNEE(S): Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke, Dietmar
SOURCE: PCT Int. Appl., 16 pp.
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|------------|
| WO 9725039 | A1 | 19970717 | WO 1996-EP5793 | 19961220 |
| W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| DE 19600721 | A1 | 19970717 | DE 1996-19600721 | 19960112 |
| AU 9713046 | A | 19970801 | AU 1997-13046 | 19961220 |
| PRIORITY APPLN. INFO.: | | | DE 1996-19600721 | A 19960112 |
| | | | WO 1996-EP5793 | W 19961220 |

L17 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:178180 CAPLUS
DOCUMENT NUMBER: 114:178180
TITLE: Treatment of humoral hypercalcemia of malignancy in rats with inhibitors of carbonic anhydrase

AUTHOR(S): Brown, Gregory M.; Morris, Carol A.; Mitnick, Mary Ann; Insogna, Karl L.
CORPORATE SOURCE: Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SOURCE: Journal of Bone and Mineral Research (1990), 5(10), 1037-41
DOCUMENT TYPE: Journal
LANGUAGE: English

CODEN: JBMREJ; ISSN: 0884-0431
L17 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:10594 CAPLUS
DOCUMENT NUMBER: 104:10594
TITLE: Antitumor pharmaceuticals containing 1-phthalidyl-5-fluorouracil and sulfonamides
PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 60126219 | A | 19850705 | JP 1983-233269 | 19831209 |
| PRIORITY APPLN. INFO.: | | | JP 1983-233269 | 19831209 |

=> d kwic 2-4

L17 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
 TI Use of carbonic anhydrase inhibitors to prepare a drug
 for cancer therapy
 AB Carbonic anhydrase inhibitors such as acetazolamide
 are useful, alone or in association with chemotherapeutic agents, phys.
 treatments such as radiation therapy, or. . .
 ST carbonic anhydrase inhibitor cancer therapy
 IT Antitumor agents
 (use of carbonic anhydrase inhibitors for cancer
 therapy)
 IT 9001-03-0, Carbonic anhydrase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; use of carbonic anhydrase inhibitors
 for cancer therapy)
 IT 59-66-5, Acetazolamide
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (use of carbonic anhydrase inhibitors for
 cancer therapy)

L17 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
 TI Treatment of humoral hypercalcemia of malignancy in rats with inhibitors
 of carbonic anhydrase
 AB The enzyme carbonic anhydrase has been suggested as a
 critical participant in osteoclast-mediated bone resorption. In humoral
 hypercalcemia of malignancy (HHM), intense osteoclastic bone resorption is
 principally responsible for the observed hypercalcemia. The effect of the
 carbonic anhydrase inhibitor acetazolamide on the
 hypercalcemia induced by the H500 Leydig cell tumor in Fisher rats, a
 well-described model of HHM, . . . in serum phosphorus, urine calcium,
 urine phosphorus, or nephrogenous cAMP excretion between the two groups.
 Acetazolamide and HTs [5-(3-hydroxybenzoyl)-2-thiophenesulfonamide],
 another carbonic anhydrase inhibitor, both
 significantly inhibited in vitro bone resorption induced by 5 + 10-9
 M 36Tyr(1-36)-PTHrP-amide (PTHrP, parathyroid hormone-related protein).
 Acetazolamide. . .
 ST carbonic anhydrase inhibitor hypercalcemia malignancy
 IT Osteoclast
 (bone resorption by, carbonic anhydrase inhibitors
 effect on, in neoplasm)
 IT Neoplasm
 (hypercalcemia in, carbonic anhydrase inhibitors
 treatment of, bone resorption response in)
 IT Resorption
 (of bone, carbonic anhydrase inhibitors effect on,
 in neoplasm)
 IT Bone, metabolism
 (resorption of, carbonic anhydrase inhibitors
 effect on)
 IT 59-66-5, Acetazolamide 114891-23-5, 5-(3-Hydroxybenzoyl)-2-
 thiophenesulfonamide
 RL: BIOL (Biological study)
 (hypercalcemia treatment with, in neoplasm, bone resorption)

response in)

IT 9001-03-0, Carbonic anhydrase
RL: BIOL (Biological study)
(inhibitors of, hypercalcemia treatment with, in neoplasm, bone
resorption response in)

IT 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(metabolic disorders, hypercalcemia, treatment of, with
carbonic anhydrase inhibitors, in neoplasm)

L17 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

AB Antitumor formulations consist of 1-phthalidyl-5-fluorouracil (I)
[81820-68-0] and carbonic anhydrase-inhibiting
sulfonamides (R1SO2NR2R3, where R1 = substituted thiienyl, thiazolyl,
thiadiazolyl, Ph; R2, R3 = H, substituted alkyl, aryl, acyl and Bz). . .
I. In Yoshida sarcoma-bearing mice, combined oral administration of I
(400 mg/kg/day) and sulfanilamide [63-74-1] (200 mg/kg/day) decreased the
relative tumor size from 1.00 in controls to 0.18 compared to
only 0.41 when I is administered alone. Thus, tablets were prepared containing
I 100, acetazolamide [59-66-5] 10, lactose 200, wheat starch
01, hydroxypropylcellulose 4 and Mg stearate 2 mg.

IT 59-66-5 63-74-1 72-14-0 133-67-5 515-64-0 723-46-6
4563-84-2
RL: BIOL (Biological study)
(antitumor pharmaceuticals containing phthalidylfluorouracil and)

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 32.07 | 37.68 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -2.34 | -2.34 |

STN INTERNATIONAL LOGOFF AT 17:06:42 ON 31 JAN 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPATA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 OCT 23 The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 4 OCT 30 CHEMIST enhanced with new search and display field
NEWS 5 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 6 NOV 10 CA/Cplus F-Term thesaurus enhanced
NEWS 7 NOV 10 STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8 NOV 20 CA/Cplus to MARPAT accession number crossover limit increased to 50,000
NEWS 9 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 10 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 11 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 13 DEC 18 CA/Cplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 14 DEC 18 CA/Cplus patent kind codes updated
NEWS 15 DEC 18 MARPAT to CA/Cplus accession number crossover limit increased to 50,000
NEWS 16 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 17 DEC 27 CA/Cplus enhanced with more pre-1907 records
NEWS 18 JAN 08 CHEMIST enhanced with New Zealand Inventory of Chemicals
NEWS 19 JAN 16 CA/Cplus Company Name Thesaurus enhanced and reloaded
NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 21 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22 JAN 22 CA/Cplus updated with revised CAS roles
NEWS 23 JAN 22 CA/Cplus enhanced with patent applications from India
NEWS 24 JAN 29 PHAR reloaded with new search and display fields
NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01C, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X_25_communication_option_no_longer_available.

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 31 JAN 2007 HIGHEST RN 918932-71-5
DICTIONARY FILE UPDATES: 31 JAN 2007 HIGHEST RN 918932-71-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

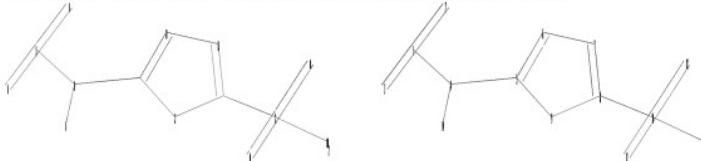
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10723795_2.str



chain nodes :
1 2 3 4 10 11 12 13 14

ring nodes :

5 6 7 8 9

chain bonds :

1-4 1-2 1-3 4-5 4-14 8-10 10-11 10-12 10-13

ring bonds :

5-6 5-9 6-7 7-8 8-9

exact/norm bonds :

1-4 1-2 1-3 4-5 5-6 5-9 6-7 7-8 8-9 8-10 10-11 10-12 10-13

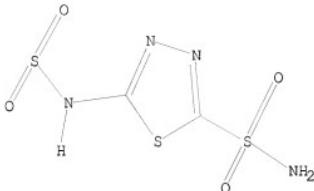
exact bonds :

4-14

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

```
=> d 11  
L1 HAS NO ANSWERS  
L1 STR
```



Structure attributes must be viewed using STN Express query preparation.

```
=> s 11  
SAMPLE SEARCH INITIATED 14:45:36 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 11 TO ITERATE  
  
100.0% PROCESSED 11 ITERATIONS 8 ANSWERS  
SEARCH TIME: 00.00.01
```

```
FULL FILE PROJECTIONS: ONLINE **COMPLETE**  
BATCH **COMPLETE**  
PROJECTED ITERATIONS: 22 TO 418  
PROJECTED ANSWERS: 8 TO 329
```

L2 8 SEA SSS SAM L1

```
=> s 11 full  
FULL SEARCH INITIATED 14:45:46 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 351 TO ITERATE  
  
100.0% PROCESSED 351 ITERATIONS 218 ANSWERS  
SEARCH TIME: 00.00.01
```

L3 218 SEA SSS FUL L1

```
=> file caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 172.10 172.31
```

```
FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
```

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing

of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 1 Feb 2007 VOL 146 ISS 6
FILE LAST UPDATED: 31 Jan 2007 (20070131/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s 13/dgn
      199 L3
      73556 DGN/RL
L4      0 L3/DGN
          (L3 (L) DGN/RL)

=> s 13
L5      199 L3

=> s tumor? or neoplas? or cancer?
      456707 TUMOR?
      479316 NEOPLAS?
      319785 CANCER?
L6      756702 TUMOR? OR NEOPLAS? OR CANCER?

=> s 16 and 15
L7      26 L6 AND L5

=> s 17 not py>2002
      4853307 PY>2002
L8      4 L7 NOT PY>2002

=> d ibib 1-4

L8  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:      2001:322273  CAPLUS
DOCUMENT NUMBER:      135:55472
TITLE:                Carbonic anhydrase inhibitors: 88. Sulfonamides as
                      antitumor agents?
AUTHOR(S):            Supuran, Claudio T.; Briganti, Fabrizio; Tilli,
                      Silvia; Chegwidden, W. Richard; Scozzafava, Andrea
CORPORATE SOURCE:      Laboratorio di Chimica Inorganica e Bioinorganica,
                      Universita degli Studi, Laboratorio di Chimica
SOURCE:               Inorganica e Bioinorganica, Florence, I-50121, Italy
BIOORGANIC & MEDICINAL CHEMISTRY (2001), 9(3), 703-714
CODEN:                BMECEP; ISSN: 0968-0896
PUBLISHER:            Elsevier Science Ltd.
DOCUMENT TYPE:        Journal
LANGUAGE:              English
OTHER SOURCE(S):      CASREACT 135:55472
REFERENCE COUNT:      81    THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS
                      RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8  ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:      2000:696271  CAPLUS
DOCUMENT NUMBER:      133:344324
TITLE:                Carbonic anhydrase inhibitors - Part 94.
                      1,3,4-Thiadiazole-2-sulfonamide derivatives as
                      antitumor agents?
AUTHOR(S):            Supuran, Claudio T.; Scozzafava, Andrea
CORPORATE SOURCE:      Universita degli Studi, Laboratorio di Chimica
```

SOURCE: Inorganica e Bioinorganica, Florence, I-50121, Italy
European Journal of Medicinal Chemistry (2000), 35(9),
867-874
PUBLISHER: CODEN: EJMCA5; ISSN: 0223-5234
DOCUMENT TYPE: Editions Scientifiques et Medicales Elsevier
LANGUAGE: Journal
REFERENCE COUNT: English
31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:379680 CAPLUS
DOCUMENT NUMBER: 133:171930
TITLE: Carbonic anhydrase inhibitors: synthesis of
N-morpholylthiocarbonylsulfenylamino
aromatic/heterocyclic sulfonamides and their
interaction with isozymes I, II and IV
AUTHOR(S): Scozzafava, Andrea; Supuran, Claudiu T.
CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica
Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000),
10(10), 1117-1120
PUBLISHER: CODEN: BMCLB8; ISSN: 0960-894X
DOCUMENT TYPE: Elsevier Science Ltd.
LANGUAGE: Journal
REFERENCE COUNT: English
22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1964:457068 CAPLUS
DOCUMENT NUMBER: 61:57068
ORIGINAL REFERENCE NO.: 61:9923b-e
TITLE: The anticonvulsive action of acetazolamide, its
derivatives, and some other sulfonamides
AUTHOR(S): Gores, E.; Hilgetag, G.; Jung, F.
CORPORATE SOURCE: Humboldt Univ., Berlin
SOURCE: Acta Physiologica Academiae Scientiarum Hungaricae
(1961), 19, 95-102
From: CZ 1962(6), 2078.
DOCUMENT TYPE: CODEN: APACAB; ISSN: 0001-6756
LANGUAGE: Journal
German

=> d ibib 1-4 abs kwic

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:322273 CAPLUS
DOCUMENT NUMBER: 135:55472
TITLE: Carbonic anhydrase inhibitors: 88. Sulfonamides as
antitumor agents?
AUTHOR(S): Supuran, Claudiu T.; Briganti, Fabrizio; Tilli,
Silvia; Chegwidden, W. Richard; Scozzafava, Andrea
CORPORATE SOURCE: Laboratorio di Chimica Inorganica e Bioinorganica,
Universita degli Studi, Laboratorio di Chimica
Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: Bioorganic & Medicinal Chemistry (2001), 9(3), 703-714
PUBLISHER: CODEN: BMECEP; ISSN: 0968-0896
DOCUMENT TYPE: Elsevier Science Ltd.
LANGUAGE: Journal
English

OTHER SOURCE(S): CASREACT 135:55472

AB Novel sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1) were prepared by reaction of aromatic or heterocyclic sulfonamides containing amino, imino, or hydrazino moieties with N,N-dialkyldithiocarbamates in the presence of oxidizing agents (sodium hypochlorite or iodine). The N,N-dialkylthiocarbamylsulfenamido-sulfonamides synthesized in this way behaved as strong inhibitors of human CA I and CA II (hCA I and hCA II) and bovine CA IV (bCA IV). For the most active compds., inhibition consts. ranged from 10⁻⁸ to 10⁻⁹ M (for isoenzymes II and IV). Three of the derivs. belonging to this new class of CA inhibitors were also tested as inhibitors of tumor cell growth in vitro. These sulfonamides showed potent inhibition of growth against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. With several cell lines, GI50 values of 10⁻⁷5 nM were observed. The mechanism of antitumor action with the new sulfonamides reported here remains obscure, but may involve inhibition of CA isoenzymes which predominate in tumor cell membranes (CA IX and CA XII), perhaps causing acidification of the intercellular milieu, or inhibition of intracellular isoenzymes which provide bicarbonate for the synthesis of nucleotides and other essential cell components (CA II and CA V). Optimization of these derivs. from the SAR point of view, might lead to the development of effective novel types of anticancer agents.

REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Novel sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1) were prepared by reaction of aromatic or heterocyclic sulfonamides containing amino, imino, or hydrazino moieties with N,N-dialkyldithiocarbamates in the presence of oxidizing agents (sodium hypochlorite or iodine). The N,N-dialkylthiocarbamylsulfenamido-sulfonamides synthesized in this way behaved as strong inhibitors of human CA I and CA II (hCA I and hCA II) and bovine CA IV (bCA IV). For the most active compds., inhibition consts. ranged from 10⁻⁸ to 10⁻⁹ M (for isoenzymes II and IV). Three of the derivs. belonging to this new class of CA inhibitors were also tested as inhibitors of tumor cell growth in vitro. These sulfonamides showed potent inhibition of growth against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. With several cell lines, GI50 values of 10⁻⁷5 nM were observed. The mechanism of antitumor action with the new sulfonamides reported here remains obscure, but may involve inhibition of CA isoenzymes which predominate in tumor cell membranes (CA IX and CA XII), perhaps causing acidification of the intercellular milieu, or inhibition of intracellular isoenzymes which provide bicarbonate for the synthesis of nucleotides and other essential cell components (CA II and CA V). Optimization of these derivs. from the SAR point of view, might lead to the development of effective novel types of anticancer agents.

IT 63-74-1 98-18-0 121-30-2 138-39-6 547-52-4 654-62-6 2153-13-1
2368-84-5 3306-62-5 3523-95-3 4392-54-5 5250-72-6
14949-00-9 16840-26-9 35303-76-5 53297-68-0 53297-69-1
60154-06-5 86029-46-1 88615-09-2 120280-13-9 216885-22-2
217972-52-6 345970-47-0 345970-48-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(sulfonamide carbonic anhydrase inhibitors as antitumor agents)

IT 345970-49-2P 345970-50-5P 345970-51-6P 345970-52-7P 345970-53-8P
345970-54-9P 345970-55-0P 345970-56-1P 345970-57-2P 345970-58-3P
345970-59-4P 345970-60-7P 345970-61-8P 345970-62-9P 345970-63-0P
345970-64-1P 345970-65-2P 345970-66-3P 345970-67-4P
345970-68-5P 345970-69-6P 345970-70-9P 345970-71-0P 345970-72-1P
345970-73-2P 345970-74-3P 345970-75-4P 345970-77-6P 345970-79-8P

345970-80-1P 345970-81-2P 345970-82-3P 345970-83-4P 345970-84-5P

345970-85-6P 345970-86-7P 345970-87-8P 345970-88-9P

345970-89-0P 345970-90-3P 345970-91-4P 345970-92-5P

345970-93-6P 345970-94-7P 345970-95-8P 345970-96-9P 345970-97-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(sulfonamide carbonic anhydrase inhibitors as antitumor agents)

IT 90110-89-7 306314-22-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sulfonamide carbonic anhydrase inhibitors as antitumor agents)

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:696271 CAPLUS

DOCUMENT NUMBER: 133:344324

TITLE: Carbonic anhydrase inhibitors - Part 94.
1,3,4-Thiadiazole-2-sulfonamide derivatives as

antitumor agents?

AUTHOR(S): Supuran, Claudio T.; Scozzafava, Andrea
CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica
Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: European Journal of Medicinal Chemistry (2000), 35(9),
867-874

PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Potent sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1), derivs. of 1,3,4-thiadiazole-2-sulfonamide, possessing inhibition consts. in the range of 10⁻⁸-10⁻⁹ M against isoenzymes II and IV, were shown to act as efficient in vitro tumor cell growth inhibitors with GI50 (molarity of inhibitor producing a 50% inhibition of tumor cell growth) values typically in the range of 0.1-30 μM against several leukemia, non-small cell lung cancer, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. The mechanism of antitumor action with the new sulfonamides reported here is unknown, but it might involve either inhibition of several CA isoenzymes (such as CA IX, CA XII, CA XIV) present predominantly in tumor cell membranes, acidification of the intracellular environment as a consequence of CA inhibition, uncoupling of mitochondria and/or strong CA V inhibition, or a combination of several such mechanisms. Such derivs. might lead to the development of effective novel types of anticancer agents/therapies.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Potent sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1), derivs. of 1,3,4-thiadiazole-2-sulfonamide, possessing inhibition consts. in the range of 10⁻⁸-10⁻⁹ M against isoenzymes II and IV, were shown to act as efficient in vitro tumor cell growth inhibitors with GI50 (molarity of inhibitor producing a 50% inhibition of tumor cell growth) values typically in the range of 0.1-30 μM against several leukemia, non-small cell lung cancer, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. The mechanism of antitumor action with the new sulfonamides reported here is unknown, but it might involve either inhibition of several CA isoenzymes (such as CA IX, CA XII, CA XIV) present predominantly in tumor cell membranes, acidification of the intracellular environment as a consequence of CA inhibition, uncoupling of mitochondria and/or strong CA V inhibition, or a combination of several such mechanisms. Such derivs. might lead to the development of effective

novel types of anticancer agents/therapies.

IT 25182-53-ODP, 1,3,4-Thiadiazole-2-sulfonamide, derivs. 86029-44-9P
90110-89-7P 97919-22-7P, CQS 141430-65-1P, E 7010
144462-41-9P 165668-41-7P, E 7070 196512-72-8P 207795-80-0P
207796-05-2P 306314-22-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(carbonic anhydrase inhibitors: 1,3,4-thiadiazole-2-sulfonamide derivs. as antitumor agents)

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:379680 CAPLUS
DOCUMENT NUMBER: 133:171930
TITLE: Carbonic anhydrase inhibitors: synthesis of N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamides and their interaction with isozymes I, II and IV

AUTHOR(S): Scozzafava, Andrea; Supuran, Claudio T.

CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), 10(10), 1117-1120

CODEN: BMCL8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Several aromatic/heterocyclic sulfonamides possessing free amino, imino, or hydrazino moieties were transformed into the corresponding N-morpholylthiocarbonylsulfenyl derivs. by reaction with N-morpholylidithiocarbamate in the presence of oxidizing agents (NaClO or iodine). These compds. showed nanomolar inhibition against three CA (carbonic anhydrase) isoenzymes and interesting in vitro tumor cell growth inhibitory properties against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate, and breast cancer cell lines.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Several aromatic/heterocyclic sulfonamides possessing free amino, imino, or hydrazino moieties were transformed into the corresponding N-morpholylthiocarbonylsulfenyl derivs. by reaction with N-morpholylidithiocarbamate in the presence of oxidizing agents (NaClO or iodine). These compds. showed nanomolar inhibition against three CA (carbonic anhydrase) isoenzymes and interesting in vitro tumor cell growth inhibitory properties against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate, and breast cancer cell lines.

ST morpholylthiocarbonylsulfenylaminosulfonamide inhibition carbonic anhydrase isoenzyme tumor cell growth

IT Antitumor agents
(N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Antitumor agents
(central nervous system; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)

IT Nervous system
Nervous system
(central, neoplasm, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide

- interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Intestine, neoplasm
- Intestine, neoplasm
(colon, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- (colon; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Kidney, neoplasm
- Kidney, neoplasm
- Ovary, neoplasm
- Ovary, neoplasm
(inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- Antitumor agents
(kidney; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- (leukemia; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- (lung non-small-cell carcinoma; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- (mammary gland; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- (melanoma; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Mammary gland
- Mammary gland
- Prostate gland
- Prostate gland
(neoplasm, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Lung, neoplasm
- Lung, neoplasm
(non-small-cell carcinoma, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Enzyme kinetics
- (of inhibition; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties)
- IT Antitumor agents
- Antitumor agents
(ovary; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic

sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV
 and cancer growth inhibitory properties)

IT Antitumor agents
 (prostate gland; N-morpholylthiocarbonylsulfenylamino
 aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase
 isoenzymes I, II and IV and cancer growth inhibitory
 properties)

IT 288584-57-6 288584-58-7 288584-59-8 288584-60-1 288584-61-2
 288584-62-3 288584-63-4 288584-64-5 288584-65-6 288584-66-7
 288584-67-8 288584-68-9 288584-69-0 288584-70-3 288584-71-4
 288584-72-5 288584-73-6 288584-74-7 288584-75-8
 288584-76-9

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide
 interaction with carbonic anhydrase isoenzymes I, II and IV and
 cancer growth inhibitory properties)

IT 9001-03-0, Carbonic anhydrase
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
 (Biological study); PROC (Process)
 (isoenzymes; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic
 sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV
 and cancer growth inhibitory properties)

IT 63-74-1 98-18-0 121-30-2 138-39-6 547-52-4 2368-84-5 3306-62-5
 3523-95-3 4392-54-5 5250-72-6 14949-00-9 16840-26-9
 35303-76-5 53297-68-0 53297-69-1 60154-06-5 86029-46-1
 120280-13-9 216885-22-2 217972-52-6

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (sulfonamide interaction with carbonic anhydrase isoenzymes I, II and
 IV)

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1964:457068 CAPLUS
 DOCUMENT NUMBER: 61:57068
 ORIGINAL REFERENCE NO.: 61:9923b-e
 TITLE: The anticonvulsive action of acetazolamide, its
 derivatives, and some other sulfonamides

AUTHOR(S): Gores, E.; Hilgetag, G.; Jung, F.
 CORPORATE SOURCE: Humboldt Univ., Berlin
 SOURCE: Acta Physiologica Academiae Scientiarum Hungaricae
 (1961), 19, 95-102
 From: CZ 1962(6), 2078.

DOCUMENT TYPE: Journal
 LANGUAGE: German
 CODEN: APACAB; ISSN: 0001-6756

AB The following 2-acetamido- and 5-amino sulfonyl-1,3,4-thiadiazole compds.
 were tested for convulsion-preventive action against elec.,
 pentamethylenetetraazole, and strychnine convulsions: 2-acetamido-1,3,4-
 thiadiazole, 5-[ethylaminosulfonyl]- (I); 5-(diethylaminosulfonyl)- (II);
 5-(ureidosulfonyl)- (III); 5-[N₂-methylureidosulfonyl]- (IV);
 5-(N₂-ethylureidosulfonyl)- (V); 5-(N₂-butylureidosulfonyl)- (VI); and
 5-(N₂-phenylureidosulfonyl)-; 5-amino sulfonyl-1,3,4-thiadiazole;
 2-amino- (VII); 2-acetamido- (VIII); 2-(p-chlorobenzenesulfonylamido)- (IX);
 2-(p-carboxybenzenesulfonylamido)-; 2-(p-nitrobenzenesulfonylamido)-; and
 2-(2-acetamido-1,3,4-thiadiazole-5-sulfonamido)-. The following compds.
 were also investigated: 2,2'-succinylidiaminobis[1,3,4-thiadiazole-5-
 sulfonamide] (X); N,N'-hexamethylenebis[3-(2-acetamido-1,3,4-thiadiazol-5-
 ylsulfonyl)urea]; N,N'-octamethylenebis[3-(2-acetamido-1,3,4-thiadiazol-5-
 ylsulfonyl)urea]; p-acetamidobenzenesulfonylamine (XI); oranil; orabet;

Prontosil; Uliron C; Neo-Uliron; p-(p-chlorobenzenesulfonylamino)benzenesulfonamide; 1,4-benzenedisulfonamide; chlorothiazide; dihydrochlorothiazide; and triazurol. III, V-XI, and XIII were effective against elec. convulsions; only II was effective against pentamethylenetetraze convulsions; and I, IV, XII, and XIII were effective against strychnine convulsions. A parallel with the diuretic action was not established.
 IT 58-93-5, 2H-1, 2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-3,4-dihydro-, 1,1-dioxide 58-94-6, 2H-1, 2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-, 1,1-dioxide 64-77-7, Urea, 1-butyl-3-(p-tolylsulfonyl)- 103-12-8, Benzenesulfonamide, p-(2,4-diaminophenyl)azo]- 121-61-9, Acetanilide, 4'-sulfamoyl- 339-43-5, Urea, 1-butyl-3-sulfanilyl- 500-42-5, s-Triazine, 2-amino-4-(p-chloroanilino)- 547-52-4, Sulfanilanilide, 4'-sulfamoyl- 547-53-5, Sulfanilanilide, 4'-(methylsulfamoyl)- 10518-52-2, Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-butyl- 13463-26-8, 1,3,4-Thiadiazole-2-sulfonamide, 5-(p-chlorobenzenesulfonamido)- 13681-31-7, 1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido-N,N-diethyl- 14949-00-9, 1,3,4-Thiadiazole-2-sulfonamide, 5-amino- 16993-45-6, p-Benzenedisulfonamide 25182-53-0, 1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido 84884-65-1, Urea, [(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]- 84884-66-2, Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-methyl- 84884-70-8, Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-phenyl- 89489-04-3, 1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido-N-ethyl- 90110-89-7, 1,3,4-Thiadiazole-2-sulfonamide, 5-(p-nitrobenzenesulfonamido)- 90271-63-9, Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-ethyl- 90324-21-3, Benzoic acid, p-[(5-sulfamoyl-1,3,4-thiadiazol-2-yl)sulfamoyl]- 91114-64-6, N,5'-Bi[1,3,4-thiadiazole-2-sulfonamide], 5-acetamido- 91398-32-2, Benzenesulfonanilide, 4-chloro-4'-sulfamoyl- 92187-74-1, Succinamide, N,N'-bis(5-sulfamoyl-1,3,4-thiadiazol-2-yl)- 97790-65-3, Urea, 1,1'-hexamethylenebis[3-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]- 98766-55-3, Urea, 1,1'-octamethylenebis[3-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-
 (as anticonvulsant)
 IT 26367-45-3, Alanine, 3-[p-[bis(2-chloroethyl)amino]phenyl]-N-formyl-
 (neoplasm inhibition by)

=> (positron emission tomography) or PET
 (POSITRON IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (>).

```

=> s (positron emission tomography) or PET
      58520 POSITRON
      12716 POSITRONS
      60849 POSITRON
          (POSITRON OR POSITRONS)
      506316 EMISSION
      93434 EMISSIONS
      550703 EMISSION
          (EMISSION OR EMISSIONS)
      18466 TOMOGRAPHY
      10 TOMOGRAPHIES
      18471 TOMOGRAPHY
          (TOMOGRAPHY OR TOMOGRAPHIES)
      23557 TOMOG
      31 TOMOGS
      23568 TOMOG
          (TOMOG OR TOMOGS)
      29235 TOMOGRAPHY
  
```

(TOMOGRAPHY OR TOMOG)
 9739 POSITRON EMISSION TOMOGRAPHY
 (POSITRON(W)EMISSION(W)TOMOGRAPHY)
 67172 PET
 967 PETs
 67621 PET
 (PET OR PETs)
 L9 70632 (POSITRON EMISSION TOMOGRAPHY) OR PET

 => d his

 (FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

 FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007
 L1 STRUCTURE uploaded
 L2 8 S L1
 L3 218 S L1 FULL

 FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007
 L4 0 S L3/DGN
 L5 199 S L3
 L6 756702 S TUMOR? OR NEOPLAS? OR CANCER?
 L7 26 S L6 AND L5
 L8 4 S L7 NOT PY>2002
 L9 70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET

 => s 19 (L) 16
 L10 3607 L9 (L) L6

 => s 110 not py>2002
 4853307 PY>2002
 L11 2179 L10 NOT PY>2002

 => d ibib abs kwic

 L11 ANSWER 1 OF 2179 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:990937 CAPLUS
 DOCUMENT NUMBER: 145:484479
 TITLE: Protein and cDNA sequences of a 24.09-kilodalton human
 proteasome subunit HC5 sequence homolog and their
 therapeutic uses
 INVENTOR(S): Mao, Yunjin; Xie, Yi
 PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development, Inc., Peop. Rep.
 China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 31pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|---|----------|-----------------|----------|
| CN 1345865 | A | 20020424 | CN 2000-125585 | 20000929 |
| PRIORITY APPLN. INFO.: | | | CN 2000-125585 | 20000929 |
| AB | The invention provides the protein and cDNA sequences of a novel 24.09-kilodalton human protein, designated as "proteasome subunit HC5 24.09", which has sequence homol. with known proteasome subunit HC5. The invention relates to expression of proteasome subunit HC5 sequence homolog in E. coli BL21(DE3)plyS8 transfected with plasmid PET-28(+) .
The invention also relates to preparation of antibody against proteasome subunit HC5 sequence homolog. The invention further relates to the uses | | | |

of the proteasome subunit HC5 sequence homolog in treatment of proteasome subunit HC5-related diseases (such as tumor, diabetes mellitus, menstrual disorder, peptic ulcer, arrhythmia, anemia, and epilepsy).
AB The invention provides the protein and cDNA sequences of a novel 24.09-kilodalton human protein, designated as "proteasome subunit HC5 24.09", which has sequence homol. with known proteasome subunit HC5. The invention relates to expression of proteasome subunit HC5 sequence homolog in *E. coli* BL21(DE3)plySs transfected with plasmid PET-28(+). The invention also relates to preparation of antibody against proteasome subunit HC5 sequence homolog. The invention further relates to the uses of the proteasome subunit HC5 sequence homolog in treatment of proteasome subunit HC5-related diseases (such as tumor, diabetes mellitus, menstrual disorder, peptic ulcer, arrhythmia, anemia, and epilepsy).

=> s (positron emission tomography)
58520 POSITRON
12716 POSITRONS
60849 POSITRON
(POSITRON OR POSITRONS)
506316 EMISSION
93434 EMISSIONS
550703 EMISSION
(EMISSION OR EMISSIONS)
18466 TOMOGRAPHY
10 TOMOGRAPHIES
18471 TOMOGRAPHY
(TOMOGRAPHY OR TOMOGRAPHIES)
23557 TOMOG
31 TOMOGS
23568 TOMOG
(TOMOG OR TOMOGS)
29235 TOMOGRAPHY
(TOMOGRAPHY OR TOMOG)
L12 9739 (POSITRON EMISSION TOMOGRAPHY)
(POSITRON(W)EMISSION(W)TOMOGRAPHY)

=> s l12 (L) 16
L13 1718 L12 (L) L6

=> d ibib kwic

L13 ANSWER 1 OF 1718 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:101979 CAPLUS
TITLE: In vivo biodistribution and highly efficient tumour targeting of carbon nanotubes in mice
AUTHOR(S): Liu, Zhuang; Cai, Weibo; He, Lina; Nakayama, Nozomi; Chen, Kai; Sun, Xiaoming; Chen, Xiaoyuan; Dai, Hongjie
CORPORATE SOURCE: Department of Chemistry, Stanford University, Stanford, CA, 94305, USA
SOURCE: Nature Nanotechnology (2007), 2(1), 47-52
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Single-walled carbon nanotubes (SWNTs) exhibit unique size, shape and phys. properties that make them promising candidates for biol. applications. Here, we investigate the biodistribution of radio-labeled SWNTs in mice by *in vivo* positron emission tomog. (PET), *ex vivo* biodistribution and Raman spectroscopy. It is found that SWNTs that are functionalized with phospholipids bearing polyethylene-glycol (PEG) are surprisingly stable *in vivo*. The effect of

PEG chain length on the biodistribution and circulation of the SWNTs is studied. Effectively PEGylated SWNTs exhibit relatively long blood circulation times and low uptake by the reticuloendothelial system (RES). Efficient targeting of integrin pos. tumor in mice is achieved with SWNTs coated with PEG chains linked to an arginine-glycine-aspartic acid (RGD) peptide. A high tumor accumulation is attributed to the multivalent effect of the SWNTs. The Raman signatures of SWNTs are used to directly probe the presence of nanotubes in mice tissues and confirm the radio-label-based results.

```
=> s brain and l13
      538747 BRAIN
      25015 BRAINS
      541541 BRAIN
          (BRAIN OR BRAINS)
L14      297 BRAIN AND L13

=> s carbonic
      44315 CARBONIC
      1 CARBONICS
L15      44316 CARBONIC
          (CARBONIC OR CARBONICS)

=> s l15 and l14
L16      0 L15 AND L14

=> s l14 not py>2003
      3800069 PY>2003
L17      213 L14 NOT PY>2003

=> s l14 not py>2002
      4853307 PY>2002
L18      193 L14 NOT PY>2002

=> d ibib abs kwic

L18 ANSWER 1 OF 193 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:7237 CAPLUS
DOCUMENT NUMBER: 141:319962
TITLE: Preparation 18F-choline analogue and its
biodistribution in annuls
AUTHOR(S): Tang, Ganghua; Tang, Xiaolan; Wang, Mingfang; Zhang,
Lan; Li, Zhi; Luo, Lei; Huang, Zuhan
CORPORATE SOURCE: Nanfang PET Center, Nanfang Hospital, First Military
Medical University, Guangzhou, 510515, Peop. Rep.
China
SOURCE: Zhonghua Heyixue Zazhi (2002), 22(3), 172-174
CODEN: CITCDE; ISSN: 0253-9780
PUBLISHER: Jiangsusheng Yuanzi Yixue Yanjiuso
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB A 18F labeled choline analog, 2-18F- fluoroethyl-dimethyl
2-oxyethyl-ammonium (FECH), a tumor imaging agent, was developed. FECH
was prepared via two steps displacement reaction of 18F-fluoride with
1,2-bis(tosyloxy)ethane to give the intermediate, 1-18F-fluoro-2-
(tosyloxy) ethane, which was then coupled with dimethylethanolamine to
prepare FECH. Radiochem. purity and biodistributions in normal mice and
nude mice bearing cancer cell were determined. FECH was synthesized in about
25% radiochem. yield with decay-correction and more than 99% radiochem.
purity with a total radiosynthesis time of 80 min. Biodistributions of
FECH in normal mice and nude mice were as follows: rapid blood clearance;
```

high uptake in the liver, kidney, bladder and pancreas; low uptake in the brain, myocardium, stomach, intestine and bone; high in tumors in blood, brain, heart, stomach, and muscle. A simple and practical synthesis protocol for FECH is achieved. Biodistribution of FECH in mice is very similar to that of ¹¹C choline reported in literatures, FECH is promising to be an agent in diagnosis of tumors with PET imaging.

AB A ¹⁸F labeled choline analog, 2-¹⁸F- fluoroethyl-dimethyl 2-oxyethyl-ammonium (FECH), a tumor imaging agent, was developed. FECH was prepared via two steps displacement reaction of ¹⁸F-fluoride with 1,2-bis(tosyloxy)ethane to give the intermediate, 1-¹⁸F-fluoro-2-(tosyloxy) ethane, which was then coupled with dimethyllethanolamine to prepare FECH. Radiochem. purity and biodistributions in normal mice and nude mice bearing cancer cell were determined. FECH was synthesized in about 25% radiochem. yield with decay-correction and more than 99% radiochem. purity with a total radiosynthesis time of 80 min. Biodistributions of FECH in normal mice and nude mice were as follows: rapid blood clearance; high uptake in the liver, kidney, bladder and pancreas; low uptake in the brain, myocardium, stomach, intestine and bone; high in tumors in blood, brain, heart, stomach, and muscle. A simple and practical synthesis protocol for FECH is achieved. Biodistribution of FECH in mice is very similar to that of ¹¹C choline reported in literatures, FECH is promising to be an agent in diagnosis of tumors with PET imaging.

IT Imaging agents

Positron-emission tomography
(preparation of ¹⁸F-choline analog as tumor imaging agents and its biodistribution in animals and)

=> dhis

DHIS IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (>).

=> d his

(FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007

L1 STRUCTURE UPLOADED
L2 8 S L1
L3 218 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007

L4 0 S L3/DGN
L5 199 S L3
L6 756702 S TUMOR? OR NEOPLAS? OR CANCER?
L7 26 S L6 AND L5
L8 4 S L7 NOT PY>2002
L9 70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET
L10 3607 S L9 (L) L6
L11 2179 S L10 NOT PY>2002
L12 9739 S (POSITRON EMISSION TOMOGRAPHY)
L13 1718 S L12 (L) L6
L14 297 S BRAIN AND L13
L15 44316 S CARBONIC
L16 0 S L15 AND L14
L17 213 S L14 NOT PY>2003
L18 193 S L14 NOT PY>2002

=> s 15 and 112
L19 3 L5 AND L12

=> d ibib 1-3

L19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354320 CAPLUS
DOCUMENT NUMBER: 146:100561
TITLE: Preparation of arenesulfonamide fluorescent dye conjugates having carbonic anhydrase inhibiting activity and their use as therapeutic and diagnostic agents
INVENTOR(S): Supuran, Claudiu; Scozzafava, Andrea
PATENT ASSIGNEE(S): Italy
SOURCE: PCT Int. Appl., 46pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|-----------------|----------|
| WO 2006137009 | A2 | 20061228 | WO 2006-IB51976 | 20060620 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JE, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| WO 2006137092 | A1 | 20061228 | WO 2005-IT366 | 20050623 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |

PRIORITY APPLN. INFO.: WO 2005-IT366 A 20050623

L19 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354145 CAPLUS
DOCUMENT NUMBER: 146:100560
TITLE: Preparation of fluorescent sulfonamide derivatives having carbonic anhydrase inhibiting activity and their use as cancer therapeutic and diagnostic agents
INVENTOR(S): Supuran, Claudiu T.; Scozzafava, Andrea
PATENT ASSIGNEE(S): Italy
SOURCE: PCT Int. Appl., 43pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|----------|-----------------|----------|
| WO 2006137092 | A1 | 20061228 | WO 2005-IT366 | 20050623 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| WO 2006137009 | A2 | 20061228 | WO 2006-IBS1976 | 20060620 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JE, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |

PRIORITY APPLN. INFO.: WO 2005-IT366 A 20050623
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:687761 CAPLUS
DOCUMENT NUMBER: 130:52370
TITLE: Carbonic anhydrase inhibitors - Part 29: interaction of isoenzymes I, II and IV with benzolamide-like derivatives
AUTHOR(S): Supuran, Claudio T.; Ilies, Marc A.; Scozzafava, Andrea
CORPORATE SOURCE: Universita degli Studi, Dipartimento di Chimica, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, 50121, Italy
SOURCE: European Journal of Medicinal Chemistry (1998), 33(9), 739-751
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007

L1 STRUCTURE uploaded
L2 8 S L1
L3 218 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007

L4 0 S L3/DGN
L5 199 S L3
L6 756702 S TUMOR? OR NEOPLAS? OR CANCER?
L7 26 S L6 AND L5
L8 4 S L7 NOT PY>2002
L9 70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET
L10 3607 S L9 (L) L6
L11 2179 S L10 NOT PY>2002
L12 9739 S (POSITRON EMISSION TOMOGRAPHY)
L13 1718 S L12 (L) L6
L14 297 S BRAIN AND L13
L15 44316 S CARBONIC
L16 0 S L15 AND L14
L17 213 S L14 NOT PY>2003
L18 193 S L14 NOT PY>2002
L19 3 S L5 AND L12

4

---Logging off of STN---

2

Executing the logoff script...

=> LOG X

| | | |
|--|------------------|---------------|
| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
| FULL ESTIMATED COST | 71.93 | 244.24 |
|
 | | |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -5.46 | -5.46 |

STN INTERNATIONAL LOGOFF AT 14:56:05 ON 01 FEB 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 OCT 23 The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 4 OCT 30 CHEMLIST enhanced with new search and display field
NEWS 5 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 6 NOV 10 CA/CPlus F-Term thesaurus enhanced
NEWS 7 NOV 10 STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8 NOV 20 CA/CPlus to MARPAT accession number crossover limit increased to 50,000
NEWS 9 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 10 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 11 DEC 14 WPIDS/WPINDEX/WFIX manual codes updated
NEWS 12 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 13 DEC 18 CA/CPlus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 14 DEC 18 CA/CPlus patent kind codes updated
NEWS 15 DEC 18 MARPAT to CA/CPlus accession number crossover limit increased to 50,000
NEWS 16 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 17 DEC 27 CA/CPlus enhanced with more pre-1907 records
NEWS 18 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19 JAN 16 CA/CPlus Company Name Thesaurus enhanced and reloaded
NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 21 JAN 16 WPIDS/WPINDEX/WFIX enhanced with IPC 8 reclassification data
NEWS 22 JAN 22 CA/CPlus updated with revised CAS roles
NEWS 23 JAN 22 CA/CPlus enhanced with patent applications from India
NEWS 24 JAN 29 PHAR reloaded with new search and display fields
NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

| | |
|------------|---|
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS IPC8 | For general information regarding STN implementation of IPC 8 |
| NEWS X25 | X.25 communication option no longer available |

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 07:02:04 ON 05 FEB 2007

=>
Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 07:53:57 ON 28 AUG 2007

| | | | |
|----------------------|--|------------|---------|
| => file caplus | | | |
| COST IN U.S. DOLLARS | | SINCE FILE | TOTAL |
| FULL ESTIMATED COST | | ENTRY | SESSION |
| | | 0.21 | 0.21 |

FILE 'CAPLUS' ENTERED AT 07:54:12 ON 28 AUG 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Aug 2007 VOL 147 ISS 10

FILE LAST UPDATED: 27 Aug 2007 (20070827/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

```
=> s us 20040146955/pn
L1      1 US 20040146955/PN
          (US2004146955/PN)
```

```
=> sel rn
E1 THROUGH E108 ASSIGNED
```

| | | | |
|----------------------|--|------------|---------|
| => file reg | | | |
| COST IN U.S. DOLLARS | | SINCE FILE | TOTAL |
| FULL ESTIMATED COST | | ENTRY | SESSION |
| | | 2.56 | 2.77 |

FILE 'REGISTRY' ENTERED AT 07:54:29 ON 28 AUG 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 AUG 2007 HIGHEST RN 945649-99-0

DICTIONARY FILE UPDATES: 27 AUG 2007 HIGHEST RN 945649-99-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and

predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> s e1-e108

1 138-39-6/BI
(138-39-6/RN)
1 3523-95-3/BI
(3523-95-3/RN)
1 35303-76-5/BI
(35303-76-5/RN)
1 63-74-1/BI
(63-74-1/RN)
1 120-97-8/BI
(120-97-8/RN)
1 120279-96-1/BI
(120279-96-1/RN)
1 121-30-2/BI
(121-30-2/RN)
1 138-41-0/BI
(138-41-0/RN)
1 138890-62-7/BI
(138890-62-7/RN)
1 14949-00-9/BI
(14949-00-9/RN)
1 165668-41-7/BI
(165668-41-7/RN)
1 2153-13-1/BI
(2153-13-1/RN)
1 215998-40-6/BI
(215998-40-6/RN)
1 215998-42-8/BI
(215998-42-8/RN)
1 215998-44-0/BI
(215998-44-0/RN)
1 215998-46-2/BI
(215998-46-2/RN)
1 215998-48-4/BI
(215998-48-4/RN)
1 215998-50-8/BI
(215998-50-8/RN)
1 215998-52-0/BI
(215998-52-0/RN)
1 215998-54-2/BI
(215998-54-2/RN)
1 215998-56-4/BI
(215998-56-4/RN)
1 215998-58-6/BI
(215998-58-6/RN)
1 215998-60-0/BI
(215998-60-0/RN)
1 215998-62-2/BI
(215998-62-2/RN)
1 215998-64-4/BI
(215998-64-4/RN)
1 215998-66-6/BI
(215998-66-6/RN)
1 215998-68-8/BI
(215998-68-8/RN)
1 215998-70-2/BI

(215998-70-2/RN)
1 215998-72-4/BI
(215998-72-4/RN)
1 215998-74-6/BI
(215998-74-6/RN)
1 215998-76-8/BI
(215998-76-8/RN)
1 215998-78-0/BI
(215998-78-0/RN)
1 215998-80-4/BI
(215998-80-4/RN)
1 215998-82-6/BI
(215998-82-6/RN)
1 215998-84-8/BI
(215998-84-8/RN)
1 215998-86-0/BI
(215998-86-0/RN)
1 215998-88-2/BI
(215998-88-2/RN)
1 215998-90-6/BI
(215998-90-6/RN)
1 215998-92-8/BI
(215998-92-8/RN)
1 215998-94-0/BI
(215998-94-0/RN)
1 215998-96-2/BI
(215998-96-2/RN)
1 215998-98-4/BI
(215998-98-4/RN)
1 215999-00-1/BI
(215999-00-1/RN)
1 215999-02-3/BI
(215999-02-3/RN)
1 215999-04-5/BI
(215999-04-5/RN)
1 215999-06-7/BI
(215999-06-7/RN)
1 215999-08-9/BI
(215999-08-9/RN)
1 215999-10-3/BI
(215999-10-3/RN)
1 215999-12-5/BI
(215999-12-5/RN)
1 215999-14-7/BI
(215999-14-7/RN)
1 215999-16-9/BI
(215999-16-9/RN)
1 215999-18-1/BI
(215999-18-1/RN)
1 216885-10-8/BI
(216885-10-8/RN)
1 2368-84-5/BI
(2368-84-5/RN)
1 244122-00-7/BI
(244122-00-7/RN)
1 259131-75-4/BI
(259131-75-4/RN)
1 29927-14-8/BI
(29927-14-8/RN)
1 3306-62-5/BI
(3306-62-5/RN)
1 345970-47-0/BI

(345970-47-0/RN)
1 345970-48-1/BI
(345970-48-1/RN)
1 35203-91-9/BI
(35203-91-9/RN)
1 4392-54-5/BI
(4392-54-5/RN)
1 452-35-7/BI
(452-35-7/RN)
1 53297-68-0/BI
(53297-68-0/RN)
1 53297-69-1/BI
(53297-69-1/RN)
1 547-52-4/BI
(547-52-4/RN)
1 554-57-4/BI
(554-57-4/RN)
1 59-66-5/BI
(59-66-5/RN)
1 60154-06-5/BI
(60154-06-5/RN)
1 606-25-7/BI
(606-25-7/RN)
1 654-62-6/BI
(654-62-6/RN)
1 67472-44-0/BI
(67472-44-0/RN)
1 688805-64-3/BI
(688805-64-3/RN)
1 688805-66-5/BI
(688805-66-5/RN)
1 688805-68-7/BI
(688805-68-7/RN)
1 688805-70-1/BI
(688805-70-1/RN)
1 688805-72-3/BI
(688805-72-3/RN)
1 688805-74-5/BI
(688805-74-5/RN)
1 688805-76-7/BI
(688805-76-7/RN)
1 688805-78-9/BI
(688805-78-9/RN)
1 688805-80-3/BI
(688805-80-3/RN)
1 688805-82-5/BI
(688805-82-5/RN)
1 688805-84-7/BI
(688805-84-7/RN)
1 688805-86-9/BI
(688805-86-9/RN)
1 688805-87-0/BI
(688805-87-0/RN)
1 688805-89-2/BI
(688805-89-2/RN)
1 688805-91-6/BI
(688805-91-6/RN)
1 688805-93-8/BI
(688805-93-8/RN)
1 688805-97-2/BI
(688805-97-2/RN)
1 688805-99-4/BI

(688805-99-4/RN)
 1 688806-01-1/BI
 (688806-01-1/RN)
 1 700378-86-5/BI
 (700378-86-5/RN)
 1 78160-85-7/BI
 (78160-85-7/RN)
 1 78160-87-9/BI
 (78160-87-9/RN)
 1 79783-03-2/BI
 (79783-03-2/RN)
 1 829-71-0/BI
 (829-71-0/RN)
 1 83439-56-9/BI
 (83439-56-9/RN)
 1 86029-46-1/BI
 (86029-46-1/RN)
 1 878502-00-2/BI
 (878502-00-2/RN)
 1 878502-01-3/BI
 (878502-01-3/RN)
 1 878502-02-4/BI
 (878502-02-4/RN)
 1 878502-03-5/BI
 (878502-03-5/RN)
 1 878502-04-6/BI
 (878502-04-6/RN)
 1 878502-05-7/BI
 (878502-05-7/RN)
 1 878502-06-8/BI
 (878502-06-8/RN)
 1 88615-09-2/BI
 (88615-09-2/RN)
 1 9001-03-0/BI
 (9001-03-0/RN)
 1 98-18-0/BI
 (98-18-0/RN)

L2 108 (138-39-6/B1 OR 3523-95-3/B1 OR 35303-76-5/B1 OR 63-74-1/B1 OR 120-97-8/B1 OR 120279-96-1/B1 OR 121-30-2/B1 OR 138-41-0/B1 OR 138890-62-7/B1 OR 14949-00-9/B1 OR 165668-41-7/B1 OR 2153-13-1/B1 OR 215998-40-6/B1 OR 215998-42-8/B1 OR 215998-44-0/B1 OR 215998-46-2/B1 OR 215998-48-4/B1 OR 215998-50-8/B1 OR 215998-52-0/B1 OR 215998-54-2/B1 OR 215998-56-4/B1 OR 215998-58-6/B1 OR 215998-60-0/B1 OR 215998-62-2/B1 OR 215998-64-4/B1 OR 215998-66-6/B1 OR 215998-68-4/B1 OR 215998-70-2/B1 OR 215998-72-4/B1 OR 215998-74-6/B1 OR 215998-76-8/B1 OR 215998-78-0/B1 OR 215998-80-4/B1 OR 215998-82-6/B1 OR 215998-84-8/B1 OR 215998-86-0/B1 OR 215998-88-2/B1 OR 215998-90-6/B1 OR 215998-92-8/B1 OR 215998-94-0/B1 OR 215998-96-2/B1 OR 215998-98-4/B1 OR 215999-00-1/B1 OR 215999-02-3/B1 OR 215999-04-5/B1 OR 215999-06-7/B1 OR 215999-08-9/B1 OR 215999-10-3/B1 OR 215999-12-5/B1 OR 215999-14-7/B1 OR 215999-16-9/B1 OR 215999-18-1/B1 OR 216885-10-8/B1 OR 2368-84-5/B1 OR 244122-00-7/B1 OR 259131-75-4/B1 OR 2992

| | | | |
|----------------------|------------|---------|--|
| => file caplus | | | |
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL | |
| FULL ESTIMATED COST | ENTRY | SESSION | |
| | 0.45 | 3.22 | |

FILE 'CAPLUS' ENTERED AT 07:54:49 ON 28 AUG 2007
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Aug 2007 VOL 147 ISS 10
FILE LAST UPDATED: 27 Aug 2007 (20070827/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> d his

(FILE 'HOME' ENTERED AT 07:53:57 ON 28 AUG 2007)

FILE 'CAPLUS' ENTERED AT 07:54:12 ON 28 AUG 2007
L1 1 S US 20040146955/PN
SEL RN

FILE 'REGISTRY' ENTERED AT 07:54:29 ON 28 AUG 2007
L2 108 S E1-E108

FILE 'CAPLUS' ENTERED AT 07:54:49 ON 28 AUG 2007

=> s 12
L3 23381 L2

=> s 12/biol
23381 L2
7024327 BIOL/RL
L4 10414 L2/BIOL
(L2 (L) BIOL/RL)

=> s cancer? or tumor? or neoplas?
343513 CANCER?
481852 TUMOR?
507305 NEOPLAS?
L5 799250 CANCER? OR TUMOR? OR NEOPLAS?

=> s 14 and 15
L6 909 L4 AND L5

=> s diag?
L7 553334 DIAG?

=> s 17 (L) 15
L8 57089 L7 (L) L5

=> s 18 and 14
L9 181 L8 AND L4

=> s 19 not py>2002

5672540 PY>2002
L10 23 L9 NOT PY>2002

=> d ibib 1-10

L10 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:942244 CAPLUS
DOCUMENT NUMBER: 138:151256
TITLE: Pimonidazole binding and tumor vascularity predict for treatment outcome in head and neck cancer
AUTHOR(S): Kaanders, Johannes H. A. M.; Wijffels, Karien I. E. M.; Marres, Henri A. M.; Ljungkvist, Anna S. E.; Pop, Lucas A. M.; Van den Hoogen, Franciscus J. A.; De Wilde, Peter C. M.; Bussink, Johan; Raleigh, James A.; Van der Kogel, Albert J.
CORPORATE SOURCE: Department of Radiation Oncology, University Medical Center Nijmegen, Nijmegen, 6500 HB, Neth.
SOURCE: Cancer Research (2002), 62(23), 7066-7074
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:579681 CAPLUS
DOCUMENT NUMBER: 138:167618
TITLE: Differential gene expression in renal-cell cancer
AUTHOR(S): Skubitz, Keith M.; Skubitz, Amy P. N.
CORPORATE SOURCE: Departments of Medicine and Laboratory Medicine and Pathology, University of Minnesota Medical School, Minneapolis, MN, USA
SOURCE: Journal of Laboratory and Clinical Medicine (2002), 140(1), 52-64
PUBLISHER: Mosby, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:510395 CAPLUS
DOCUMENT NUMBER: 138:104572
TITLE: Molecular determinants of human uveal melanoma invasion and metastasis
AUTHOR(S): Seftor, Elisabeth A.; Meltzer, Paul S.; Kirschmann, Dawn A.; Pe'er, Jacob; Maniotis, Andrew J.; Trent, Jeffrey M.; Folberg, Robert; Hendrix, Mary J. C.
CORPORATE SOURCE: Department of Anatomy and Cell Biology, College of Medicine and The Holden Comprehensive Cancer Center, University of Iowa, Iowa City, IA, USA
SOURCE: Clinical & Experimental Metastasis (2002), 19(3), 233-246
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:506032 CAPLUS
DOCUMENT NUMBER: 137:199256
TITLE: HIF activation identifies early lesions in VHL
kidneys: evidence for site-specific tumor suppressor
function in the nephron
AUTHOR(S): Mandriota, Stefano J.; Turner, Kevin J.; Davies, David
R.; Murray, Paul G.; Morgan, Neil V.; Sowter, Heidi
M.; Wykoff, Charles C.; Maher, Eamonn R.; Harris,
Adrian L.; Ratcliffe, Peter J.; Maxwell, Patrick H.
COPARTNERSHIP SOURCE: Wellcome Trust Centre for Human Genetics, Oxford, OX3
7BN, UK
SOURCE: Cancer Cell (2002), 1(5), 459-468
CODEN: CCAECI; ISSN: 1535-6108
PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:743200 CAPLUS
DOCUMENT NUMBER: 136:35588
TITLE: Secreted and cell surface genes expressed in benign
and malignant colorectal tumors
AUTHOR(S): Buckhaults, Phillip; Rago, Carlo; St. Croix, Brad;
Romans, Katharine E.; Saha, Saurabh; Zhang, Lin;
Vogelstein, Bert; Kinzler, Kenneth W.
COPARTNERSHIP SOURCE: Howard Hughes Medical Institute, Johns Hopkins Medical
Institutions, Baltimore, MD, 21231, USA
SOURCE: Cancer Research (2001), 61(19), 6996-7001
CODEN: CNREAB; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:584391 CAPLUS
DOCUMENT NUMBER: 135:286595
TITLE: Genetic analysis of early- versus late-stage ovarian
tumors
AUTHOR(S): Shridhar, Viji; Lee, John; Pandita, Ajay; Iturria,
Steve; Avula, Rajeswari; Staub, Julie; Morrissey,
Mike; Calhoun, Eric; Sen, Ami; Kallli, Kimberly;
Keeney, Gary; Roche, Patrick; Cliby, William; Lu,
Karen; Schmandt, Rosemarie; Mills, Gordon B.; Bast,
Robert C., Jr.; James, C. David; Couch, Fergus J.;
Hartmann, Lynn C.; Lillie, Jim; Smith, David I.
COPARTNERSHIP SOURCE: Departments of Experimental Pathology, Division of
Laboratory Medicine, The Mayo Clinic, Rochester, MN,
55905, USA
SOURCE: Cancer Research (2001), 61(15), 5895-5904
CODEN: CNREAB; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 79 THERE ARE 79 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:361504 CAPLUS
 DOCUMENT NUMBER: 135:146678
 TITLE: Carbonic anhydrase inhibitors
 AUTHOR(S): Supuran, Claudio T.; Scozzafava, Andrea
 CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica
 Inorganica e Bioinorganica, Florence, I-50121, Italy
 SOURCE: Current Medicinal Chemistry: Immunology, Endocrine &
 Metabolic Agents (2001), 1(1), 61-97
 CODEN: CMIC8; ISSN: 1568-0134
 PUBLISHER: Bentham Science Publishers Ltd.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 REFERENCE COUNT: 152 THERE ARE 152 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L10 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:320060 CAPLUS
 DOCUMENT NUMBER: 134:339179
 TITLE: Nucleic acids and proteins associated with cancer as
 antitumor targets
 INVENTOR(S): Burmer, Glenna C.; Brown, Joseph P.; Pritchard, David
 PATENT ASSIGNEE(S): Lifespan Biosciences, Inc., USA
 SOURCE: PCT Int. Appl., 98 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2001030964 | A2 | 20010503 | WO 2000-US29126 | 20001020 |
| WO 2001030964 | A3 | 20010809 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2001013397 | A | 20010508 | AU 2001-13397 | 20001020 |
| PRIORITY APPLN. INFO.: | | | US 1999-161232P | P 19991022 |
| | | | US 2000-693783 | A 20001019 |
| | | | WO 2000-US29126 | W 20001020 |

L10 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:247374 CAPLUS
 DOCUMENT NUMBER: 134:276523
 TITLE: Hypoxia-related human genes and their encoded proteins
 and diagnostic and therapeutic uses
 INVENTOR(S): Denko, Nicholas C.; Giaccia, Amato J.; Green,
 Christopher J.; Laderoute, Keith R.; Schindler,
 Cornelia; Koong, Albert Ching-Wei
 PATENT ASSIGNEE(S): Varian Associates, Inc., USA
 SOURCE: PCT Int. Appl., 110 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---------------------------|-----------------|------------|
| WO 2001023426 | A2 | 20010405 | WO 2000-US27189 | 20001002 |
| WO 2001023426 | A3 | 20011101 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JE, KE, KG, KP, KR,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRIORITY APPLN. INFO.: | | | US 1999-410375 | A 19990930 |
| L10 ANSWER 10 OF 23 | CAPLUS | COPYRIGHT 2007 ACS on STN | | |
| ACCESSION NUMBER: | 2000:748205 | CAPLUS | | |
| DOCUMENT NUMBER: | 133:361435 | | | |
| TITLE: | Expression of transmembrane carbonic anhydrase
isoenzymes IX and XII in normal human pancreas and
pancreatic tumors | | | |
| AUTHOR(S): | Kivela, Antti J.; Parkkila, Seppo; Saarnio, Juha;
Karttunen, Tuomo J.; Kivela, Jyrki; Parkkila,
Anna-Kaisa; Pastorekova, Silvia; Pastorek, Jaromir;
Waheed, Abdul; Sly, William S.; Rajaniemi, Hannu | | | |
| CORPORATE SOURCE: | Department of Anatomy and Cell Biology, University of
Oulu, Oulu, 90014, Finland | | | |
| SOURCE: | Histochemistry and Cell Biology (2000), 114(3),
197-204 | | | |
| PUBLISHER: | CODEN: HCBIFP; ISSN: 0948-6143 | | | |
| DOCUMENT TYPE: | Springer-Verlag | | | |
| LANGUAGE: | Journal | | | |
| REFERENCE COUNT: | 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT | | | |

=> d his

(FILE 'HOME' ENTERED AT 07:53:57 ON 28 AUG 2007)

FILE 'CAPLUS' ENTERED AT 07:54:12 ON 28 AUG 2007
 L1 1 S US 20040146955/PN
 SEL RN

FILE 'REGISTRY' ENTERED AT 07:54:29 ON 28 AUG 2007
 L2 108 S E1-E108

FILE 'CAPLUS' ENTERED AT 07:54:49 ON 28 AUG 2007
 L3 23381 S L2
 L4 10414 S L2/BIOL
 L5 799250 S CANCER? OR TUMOR? OR NEOPLAS?
 L6 909 S L4 AND L5
 L7 553334 S DIAG?
 L8 57089 S L7 (L) L5
 L9 181 S L8 AND L4
 L10 23 S L9 NOT PY>2002

=> s 110 and inhibit?

1955429 INHIBIT?
L11 9 L10 AND INHIBIT?

=> d ibib ab 1-9

L11 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:510395 CAPLUS
DOCUMENT NUMBER: 138:104572
TITLE: Molecular determinants of human uveal melanoma invasion and metastasis
AUTHOR(S): Seftor, Elisabeth A.; Meltzer, Paul S.; Kirschmann, Dawn A.; Pe'er, Jacob; Maniotis, Andrew J.; Trent, Jeffrey M.; Folberg, Robert; Hendrix, Mary J. C.
CORPORATE SOURCE: Department of Anatomy and Cell Biology, College of Medicine and The Holden Comprehensive Cancer Center, University of Iowa, Iowa City, IA, USA
SOURCE: Clinical & Experimental Metastasis (2002), 19(3), 233-246
CODEN: CEXMD2; ISSN: 0262-0898
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The mol. anal. of cancer has benefited tremendously from the sequencing of the human genome integrated with the science of bioinformatics. Microarray anal. technol. has the potential to classify tumors based on the differential expression of genes. In the current study, a collaborative, multidisciplinary approach was utilized to study the mol. determinants of human uveal melanoma invasion and metastasis. Uveal melanoma is considered the most common primary intraocular cancer in adults, resulting in the death of approx. 50% of patients affected. Unfortunately, at the time of diagnosis , many patients already harbor microscopic metastases, thus underscoring a critical need to identify prognostic markers indicative of metastatic potential. The investigative strategy consisted of isolating highly invasive vs. poorly invasive uveal melanoma cells from a heterogeneous tumor derived from cells that had metastasized from the eye to the liver. The heterogeneous tissue explant MUM-2 led to the derivation of two clonal cell lines: MUM-2B and MUM-2C. Further morphol. and functional analyses revealed that the MUM-2B cells were epithelioid, interconverted (expressing mesenchymal and epithelial phenotypes) highly invasive, and demonstrated vasculogenic mimicry. The MUM-2C cells were spindle-like, expressed only a vimentin mesenchymal phenotype, poorly invasive, and were incapable of vasculogenic mimicry. The mol. anal. of the MUM-2B vs. the MUM-2C clones resulted in the differential expression of 210 known genes. Overall, the mol. signature of the MUM-2B cells resembled that of multiple phenotypes - similar to a pluripotent, embryonic-like genotype. Validation of select genes that were upregulated and down-regulated was conducted by semiquant. RT-PCR measurement. This study provides a mol. profile that will hopefully lead to the development of new mol. targets for therapeutic intervention and possible diagnostic markers to predict the clin. outcome of patients with uveal melanoma.
REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:743200 CAPLUS
DOCUMENT NUMBER: 136:35588
TITLE: Secreted and cell surface genes expressed in benign and malignant colorectal tumors
AUTHOR(S): Buckhaults, Phillip; Rago, Carlo; St. Croix, Brad; Romans, Katharine E.; Saha, Saurabh; Zhang, Lin; Vogelstein, Bert; Kinzler, Kenneth W.

CORPORATE SOURCE: Howard Hughes Medical Institute, Johns Hopkins Medical Institutions, Baltimore, MD, 21231, USA
SOURCE: Cancer Research (2001), 61(19), 6996-7001
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Serial anal. of gene expression was used to identify transcripts encoding secreted or cell surface proteins that were expressed in benign and malignant tumors of the colorectum. A total of 290,394 tags were analyzed from normal, adenomatous, and cancerous colonic epithelium. Of the 21,343 different transcripts observed, 957 were found to be differentially expressed between normal tissue and adenoma or between normal tissue and cancer. Forty-nine transcripts were elevated ≥ 20 -fold in adenomas, 40 transcripts were elevated ≥ 20 -fold in cancers, and 9 transcripts were elevated ≥ 20 -fold in both. Products of six of these nine transcripts (TGFBI, LYS, RDP, MIC-1, REGA, and DEHL) were predicted to be secreted or to reside on the cell surface, and these were analyzed in more detail. The abnormal expression levels predicted by serial anal. of gene expression were confirmed by quant. PCR analyses of each of these six genes. Moreover, the cell types responsible for the elevated expression were identified by in situ hybridization and by PCR analyses of epithelial cells immunoaffinity purified from primary tumors. This study extends knowledge of the differences in gene expression that underlie various stages of neoplasia and suggests specific diagnostic approaches that may be useful for the early detection of colorectal neoplasia

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:361504 CAPLUS
DOCUMENT NUMBER: 135:146678
TITLE: Carbonic anhydrase inhibitors
AUTHOR(S): Supuran, Claudio T.; Scozzafava, Andrea
CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE: Current Medicinal Chemistry: Immunology, Endocrine & Metabolic Agents (2001), 1(1), 61-97
CODEN: CMIC8; ISSN: 1568-0134
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 151 refs. CAs (EC 4.2.1.1) are wide-spread zinc enzymes, present in mammals in at least 14 different isoforms. Some of these isoenzymes are cytosolic (CA I, CA II, CA III, CA VII), others are membrane-bound (CA IV, CA IX, CA XII and CA XIV), CA V is mitochondrial and CA VI is secreted in the saliva. Three catalytic forms are also known (CARP VIII, CARP X and CARP XI). Several important physiol. and physio-pathol. functions are played by many CA isoenzymes, which are strongly inhibited by aromatic and heterocyclic sulfonamides. The catalytic and inhibition mechanisms of these enzymes are understood in great detail, and this greatly helped the design of potent inhibitors, some of which possess important clin. applications. The use of such enzyme inhibitors as antiglaucoma drugs will be discussed in detail, together with the recent developments that led to isoenzyme-specific and organ-selective inhibitors. A recent discovery is connected with the involvement of CAs and their sulfonamide inhibitors in cancer: several potent sulfonamide inhibitors inhibited the growth of a multitude of tumor cells in vitro and in vivo, constituting thus interesting

leads for developing novel antitumor therapies. Furthermore, some other classes of compds. that interact with CAs have recently been discovered, some of which possess modified sulfonamide or hydroxamate moieties. Some sulfonamides have also applications as diagnostic tools, in PET and MRI. Future prospects for drug design applications for inhibitors of these ubiquitous enzymes will also be discussed.

REFERENCE COUNT: 152 THERE ARE 152 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:320060 CAPLUS
DOCUMENT NUMBER: 134:339179
TITLE: Nucleic acids and proteins associated with cancer as antitumor targets
INVENTOR(S): Burmer, Glenna C.; Brown, Joseph P.; Pritchard, David
PATENT ASSIGNEE(S): Lifespan Biosciences, Inc., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2001030964 | A2 | 20010503 | WO 2000-US29126 | 20001020 |
| WO 2001030964 | A3 | 20010809 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| AU 2001013397 | A | 20010508 | AU 2001-13397 | 20001020 |
| PRIORITY APPLN. INFO.: | | | US 1999-161232P | P 19991022 |
| | | | US 2000-693783 | A 20001019 |
| | | | WO 2000-US29126 | W 20001020 |

AB This invention relates to the discovery of nucleic acids associated with cell proliferation, neoplasia, cell transformation, malignant tumor formation and metastasis and uses therefor. The present invention provides a method for cancer diagnosing by detecting the overexpression or the underexpression of a cancer-associated mRNA in the tissue of interest, preferably in liver, breast, prostate, kidney and colon. In another aspect, the invention provides methods for arresting cancer and a method for identifying a modulators of cancer development.

L11 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:247374 CAPLUS
DOCUMENT NUMBER: 134:276523
TITLE: Hypoxia-related human genes and their encoded proteins and diagnostic and therapeutic uses
INVENTOR(S): Denko, Nicholas C.; Giaccia, Amato J.; Green, Christopher J.; Laderoute, Keith R.; Schindler, Cornelia; Koong, Albert Ching-Wei
PATENT ASSIGNEE(S): Varian Associates, Inc., USA
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------------|-----------------|------------|
| WO 2001023426 | A2 | 20010405 | WO 2000-US27189 | 20001002 |
| WO 2001023426 | A3 | 20011101 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI,
GB, GD, GE, GH, GM, HR, RU, ID, IL, IN, IS, JE, KE, KG, KP, KR,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRIORITY APPLN. INFO.: | | US 1999-410375 | | A 19990930 |

AB The polynucleotide and polypeptide sequences of two novel hypoxia-inducible human and murine genes, HIG1 and HIG2, are described. In addition, a number of known genes and ESTs are established as being hypoxia-inducible and hypoxia-repressible. Polynucleotide and polypeptide arrays comprising the hypoxia-inducible and hypoxia-repressible gene sequences, proteins, or antibodies which specifically bind the proteins are disclosed. Methods for using the hypoxia-inducible and hypoxia-repressible gene sequences and proteins, and arrays thereof, to diagnose and treat hypoxia-related conditions such as cancer and ischemia are also provided.

L11 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:262841 CAPLUS
 DOCUMENT NUMBER: 124:314359
 TITLE: A marker antigen for non-small cell lung cancer and a cDNA encoding it and their uses
 INVENTOR(S): Torczynski, Richard M.; Bollon, Arthur P.
 PATENT ASSIGNEE(S): Cytoclonal Pharmaceutics, Inc., USA
 SOURCE: PCT Int. Appl., 86 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------------|-----------------|----------|
| WO 9602552 | A1 | 19960201 | WO 1995-US9145 | 19950719 |
| W: AU, BR, CA, CN, FI, JP, KE, KR, LK, MN, MX, NO, NZ, PL, RU, UA, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5589579 | A | 19961231 | US 1994-276919 | 19940719 |
| CA 2195403 | A1 | 19960201 | CA 1995-2195403 | 19950719 |
| AU 9533592 | A | 19960216 | AU 1995-33592 | 19950719 |
| AU 700915 | B2 | 19990114 | | |
| EP 804451 | A1 | 19971105 | EP 1995-930093 | 19950719 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE | | | | |
| BR 9508417 | A | 19971118 | BR 1995-8417 | 19950719 |
| JP 10503087 | T | 19980324 | JP 1995-505257 | 19950719 |
| US 5773579 | A | 19980630 | US 1997-776088 | 19970121 |
| PRIORITY APPLN. INFO.: | | US 1994-276919 | A 19940719 | |
| | | WO 1995-US9145 | W 19950719 | |

AB A cDNA and the corresponding protein for a novel protein specific for

human lung cancer cells are described. This gene is expressed at a much higher level in these cells than in normal lung cells, other normal tissues and other tumor cell lines tested. Genes for forms of the protein lacking a membrane spanning region and with amino acid substitutions affecting a potential phosphorylation site are also described. Nucleic acid probes for the detection of lung cancer cells from tissue biopsy and body fluids such as serum sputum and bronchial washings are derived from the gene. Manufacture of the antigen in a host cell and its use as an immunogen in antibody production for test applications is described. An ELISA test to measure shed antigen present in patient samples as well as an enzyme test to measure activity in specimens are also described. The protein has features common to human carbonic anhydrases and is named HCAVIII (human carbonic anhydrase VIII).

L11 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:881452 CAPLUS
DOCUMENT NUMBER: 123:296614
TITLE: Pretargeting methods and compounds with reduced immunogenicity of targeting moiety-anti-ligand conjugates or other components employed in diagnostic and therapeutic pretargeting protocols
INVENTOR(S): Graves, Scott S.; Bjorn, Michael J.; Reno, John M.; Axworthy, Donald B.; Fritzberg, Alan R.; Theodore, Louis J.
PATENT ASSIGNEE(S): Neoxr Corp., USA
SOURCE: PCT Int. Appl., 173 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|----------|
| WO 9515770 | A1 | 19950615 | WO 1994-US14223 | 19941209 |

W: CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRIORITY APPLN. INFO.: US 1993-164302 A 19931209
AB Methods, compds., compns., and kits that relate to pretargeted delivery of diagnostic and therapeutic agents are disclosed. In particular, methods and agents are provided for reducing the immunogenicity of targeting moiety-anti-ligand conjugates or other components employed in diagnostic and therapeutic pretargeting protocols. Preparation of various conjugates for use in the invention is included. Examples include e.g. in vivo anal. of a radiolabeled chelate-biotin conjugate administered after antibody pretargeting, clearing agent evaluation, two- and three-step pretargeting methodol., administration of a monoclonal antibody (MAb)-streptavidin conjugate in humans, and immunosuppression of MAb-containing conjugates.

L11 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:429021 CAPLUS
DOCUMENT NUMBER: 122:179383
TITLE: Identification of ligands by selective amplification of cells transfected with receptors
INVENTOR(S): Brann, Mark Robert
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|--|---|-----------------|------------|
| WO 9502823 | A1 | 19950126 | WO 1994-US7900 | 19940713 |
| W: AM, AU, BB,
LV, MG, MN,
RW: AT, BE, CH, | BG, BR, BY, CA,
MW, NO, NZ, PL,
DE, DK, ES, FR,
IL 110298 | CN, CZ, FI, HU, JP, KP, KR, KZ, LK,
RO, RU, SD, SE, SK, UA, UZ, VN
GB, GR, IE, IT, LU, MC, NL, PT, SE | | |
| CA 2167048 | A1 | 19950126 | IL 1994-110298 | 19940712 |
| CA 2167048 | C | 20010925 | CA 1994-2167048 | 19940713 |
| AU 9473330 | A | 19950213 | AU 1994-73330 | 19940713 |
| AU 679253 | B2 | 19970626 | | |
| EP 708922 | A1 | 19960501 | EP 1994-923478 | 19940713 |
| EP 708922 | B1 | 19990310 | | |
| R: AT, BE, CH, | DE, DK, ES, FR, | GB, GR, IE, IT, LI, LU, NL, PT, SE | | |
| JP 09500023 | T | 19970107 | JP 1995-504713 | 19940713 |
| JP 3102571 | B2 | 20001023 | | |
| AT 177535 | T | 19990315 | AT 1994-923478 | 19940713 |
| ES 2129658 | T3 | 19990616 | ES 1994-923478 | 19940713 |
| PRIORITY APPLN. INFO.: | | | US 1993-91694 | A 19930713 |
| | | | WO 1994-US7900 | W 19940713 |

AB A method of detecting a substance capable of acting as a ligand comprises (a) incubating, under conditions permitting cell amplification, cells transfected with DNA coding for a receptor capable of influencing cell amplification in response to a ligand, the cells containing a marker of cell amplification, with a test substance which is a potential agonist or antagonist of the receptor, and (b) after a period of time sufficient to permit cell amplification, determining the presence or absence of amplification of cells containing the marker relative to cells not containing the marker.

Thus,

3T3 cells were transfected with DNA for the trk A receptor, stimulation of which activates tyrosine phosphorylation, and with DNA for β-galactosidase. Incubation of the cells with NGF, an agonist for the trk receptor, dose-dependently induced growth of the cells over the range 10-12-10-9M, as indicated by β-galactosidase activity.

L11 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1992:100166 CAPLUS
 DOCUMENT NUMBER: 116:100166
 TITLE: Method for increasing blood-brain barrier permeability by intravenous coadministration of bradykinin agonist
 INVENTOR(S): Malfroy-Camine, Bernard; Smart, Janet L.
 PATENT ASSIGNEE(S): Alkermes, Inc., USA
 SOURCE: PCT Int. Appl., 65 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|--|--|-----------------|----------|
| WO 9116355 | A1 | 19911031 | WO 1991-US2772 | 19910423 |
| W: AT, AU, BB,
LK, LU, MC,
RW: AT, BE, BF, | BG, BR, CA, CH,
MG, MW, NL, NO,
DE, DK, ES, FI,
BJ, CF, CG, CH,
LU, ML, MR, NL, SE, SN, TD, TG | DE, DK, ES, FI,
PL, RO, SD, SE, SU, US
CM, DE, DK, ES, FR, GA, GB, GR, IT, | | |
| US 5112596 | A | 19920512 | US 1990-512913 | 19900423 |
| AU 9178606 | A | 19911111 | AU 1991-78606 | 19910423 |
| AU 650020 | B2 | 19940609 | | |
| EP 528891 | A1 | 19930303 | EP 1991-909190 | 19910423 |
| EP 528891 | B1 | 20000705 | | |

| | | | |
|------------------------|--|----------------|-------------|
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | |
| JP 05506859 | T 19931007 | JP 1991-509000 | 19910423 |
| AT 194289 | T 20000715 | AT 1991-909190 | 19910423 |
| ES 2147722 | T3 20001001 | ES 1991-909190 | 19910423 |
| US 5506206 | A 19960409 | US 1993-121058 | 19930913 |
| GR 3034351 | T3 20001229 | GR 2000-402039 | 20000906 |
| PRIORITY APPLN. INFO.: | | US 1990-512913 | A2 19900423 |
| | | US 1991-690522 | A3 19910423 |
| | | WO 1991-US2772 | A 19910423 |

AB The permeability of the blood-brain barrier of a host to a (therapeutic or diagnostic) mol. is increased by i.v. coadministration of a bradykinin agonist of blood-brain permeability. [Hyp3, Thi5 4-Me-Tyr8[¶](CH2NH)Arg9] bradykinin (A-7; Thi = thiethylalanine; preparation given) increased the brain uptake of loperamide, domperidone, 3H-AZT, 99mTc-DISIDA, and others. Rats with brain tumor implants survived longer when treated with cisplatin coadministered with A-7.

=> d ibib ab kwic 3, 7, 9

L11 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:361504 CAPLUS
 DOCUMENT NUMBER: 135:146678
 TITLE: Carbonic anhydrase inhibitors
 AUTHOR(S): Supuran, Claudiu T.; Scozzafava, Andrea
 CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
 SOURCE: Current Medicinal Chemistry: Immunology, Endocrine & Metabolic Agents (2001), 1(1), 61-97
 CODEN: CMIC8; ISSN: 1568-0134
 PUBLISHER: Bentham Science Publishers Ltd.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 AB A review with 151 refs. CAs (EC 4.2.1.1) are wide-spread zinc enzymes, present in mammals in at least 14 different isoforms. Some of these isoenzymes are cytosolic (CA I, CA II, CA III, CA VII), others are membrane-bound (CA IV, CA IX, CA XII and CA XIV), CA V is mitochondrial and CA VI is secreted in the saliva. Three acatalytic forms are also known (CARP VIII, CARP X and CARP XI). Several important physiol. and physio-pathol. functions are played by many CA isoenzymes, which are strongly inhibited by aromatic and heterocyclic sulfonamides. The catalytic and inhibition mechanisms of these enzymes are understood in great detail, and this greatly helped the design of potent inhibitors, some of which possess important clin. applications. The use of such enzyme inhibitors as antiglaucoma drugs will be discussed in detail, together with the recent developments that led to isoenzyme-specific and organ-selective inhibitors. A recent discovery is connected with the involvement of CAs and their sulfonamide inhibitors in cancer: several potent sulfonamide inhibitors inhibited the growth of a multitude of tumor cells in vitro and in vivo, constituting thus interesting leads for developing novel antitumor therapies. Furthermore, some other classes of compds. that interact with CAs have recently been discovered, some of which possess modified sulfonamide or hydroxamate moieties. Some sulfonamides have also applications as diagnostic tools, in PET and MRI. Future prospects for drug design applications for inhibitors of these ubiquitous enzymes will also be discussed.
 REFERENCE COUNT: 152 THERE ARE 152 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
 TI Carbonic anhydrase inhibitors
 AB A review with 151 refs. CAs (EC 4.2.1.1) are wide-spread zinc enzymes,

present in mammals in at least 14 different isoforms. Some of these isoenzymes are cytosolic (CA I, CA II, CA III, CA VII), others are membrane-bound (CA IV, CA IX, CA XII and CA XIV), CA V is mitochondrial and CA VI is secreted in the saliva. Three acatalytic forms are also known (CARP VIII, CARP X and CARP XI). Several important physiol. and physio-pathol. functions are played by many CA isoenzymes, which are strongly inhibited by aromatic and heterocyclic sulfonamides. The catalytic and inhibition mechanisms of these enzymes are understood in great detail, and this greatly helped the design of potent inhibitors, some of which possess important clin. applications. The use of such enzyme inhibitors as antiglaucoma drugs will be discussed in detail, together with the recent developments that led to isoenzyme-specific and organ-selective inhibitors. A recent discovery is connected with the involvement of CAs and their sulfonamide inhibitors in cancer: several potent sulfonamide inhibitors inhibited the growth of a multitude of tumor cells *in vitro* and *in vivo*, constituting thus interesting leads for developing novel antitumor therapies. Furthermore, some other classes of compds. that interact with CAs have recently been discovered, some of which possess modified sulfonamide or hydroxamate moieties. Some sulfonamides have also applications as diagnostic tools, in PET and MRI. Future prospects for drug design applications for inhibitors of these ubiquitous enzymes will also be discussed.

ST review carbonic anhydrase inhibitor antiglaucoma antitumor therapy

IT Antiglaucoma agents

Antitumor agents

Drug design

(carbonic anhydrase inhibitors)

IT 9001-03-0, Carbonic anhydrase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(carbonic anhydrase inhibitors)

L11 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:881452 CAPLUS

DOCUMENT NUMBER: 123:296614

TITLE: Pretargeting methods and compounds with reduced immunogenicity of targeting moiety-anti-ligand conjugates or other components employed in diagnostic and therapeutic pretargeting protocols

INVENTOR(S): Graves, Scott S.; Bjorn, Michael J.; Reno, John M.; Axworthy, Donald B.; Fritzberg, Alan R.; Theodore, Louis J.

PATENT ASSIGNEE(S): Neoxr Corp., USA

SOURCE: PCT Int. Appl., 173 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|----------|
| ----- | ---- | ----- | ----- | ----- |
| WO 9515770 | A1 | 19950615 | WO 1994-US14223 | 19941209 |

W: CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.: US 1993-164302 A 19931209

AB Methods, compds., compns., and kits that relate to pretargeted delivery of diagnostic and therapeutic agents are disclosed. In particular, methods and agents are provided for reducing the immunogenicity of targeting moiety-anti-ligand conjugates or other components employed in diagnostic and therapeutic pretargeting protocols. Preparation of various conjugates for

use in the invention is included. Examples include e.g. in vivo anal. of a radiolabeled chelate-biotin conjugate administered after antibody pretargeting, clearing agent evaluation, two- and three-step pretargeting methodol., administration of a monoclonal antibody (MAb)-streptavidin conjugate in humans, and immunosuppression of MAb-containing conjugates.

IT Neoplasm inhibitors
(conjugates with biotin; therapeutic and diagnostic pretargeting methods and compds., and conjugate preparation and evaluation)

IT Intestine, neoplasm
(colon, therapeutic and diagnostic pretargeting methods and compds., and conjugate preparation and evaluation)

IT Neoplasm inhibitors
(lung small-cell carcinoma, therapeutic and diagnostic pretargeting methods and compds., and conjugate preparation and evaluation)

IT Lung, neoplasm
(small-cell carcinoma, therapeutic and diagnostic pretargeting methods and compds., and conjugate preparation and evaluation)

IT Lung, neoplasm
(small-cell carcinoma, inhibitors, therapeutic and diagnostic pretargeting methods and compds., and conjugate preparation and evaluation)

IT 50-18-0, Cyclophosphamide 52-53-9, Verapamil 58-85-5D, Biotin, conjugates with therapeutic and linker 59-05-2, Methotrexate 59-23-4D, Galactose, conjugates with albumin and biotin 59-66-5, Acetazolamide 114-07-8, Erythromycin 364-62-5, Metoclopramide 446-86-6, Azathioprine 4759-48-2, Isotretinoin 9013-20-1D, Streptavidin, targeting moiety conjugates 10043-49-9D, Gold-198, biotin conjugates, biological studies 10043-66-0D, Iodine-131, biotin conjugates, biological studies 10098-91-6D, Yttrium-90, biotin conjugates, biological studies 14265-75-9D, Lutetium-177, biotin conjugates, biological studies 14378-26-8D, Rhenium-188, biotin conjugates, biological studies 14913-49-6D, Bismuth-212, biotin conjugates, biological studies 14913-89-4D, biotin conjugates, biological studies 14998-63-1D, Rhenium-186, biotin conjugates, biological studies 15092-94-1D, Lead-212, biotin conjugates, biological studies 15715-08-9D, Iodine-123, biotin conjugates, biological studies 15750-15-9D, Indium-111, biotin conjugates, biological studies 15755-39-2D, Astatine-211, biotin conjugates, biological studies 15757-86-5D, Copper-67, biotin conjugates, biological studies 15766-00-4D, Samarium-153, biotin conjugates, biological studies 24280-93-1, Mycophenolic acid 25322-68-3D, streptavidin derivs. 42399-41-7, Diltiazem 51632-96-3D, Europium-169, biotin conjugates, biological studies 53123-88-9, Rapamycin 55985-32-5, Nicardipine 59865-13-3, Cyclosporin A 65277-42-1, Ketoconazole 86386-73-4, Fluconazole 89149-10-0, Dexoxyspergualin 104987-11-3, FK506

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic and diagnostic pretargeting methods and compds., and conjugate preparation and evaluation)

L11 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:100166 CAPLUS
DOCUMENT NUMBER: 116:100166
TITLE: Method for increasing blood-brain barrier permeability by intravenous coadministration of bradykinin agonist
INVENTOR(S): Malfroy-Camine, Bernard; Smart, Janet L.
PATENT ASSIGNEE(S): Alkermes, Inc., USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|--|--|-----------------|-------------|
| WO 9116355 | A1 | 19911031 | WO 1991-US2772 | 19910423 |
| W: AT, AU, BB,
LK, LU, MC,
RW: AT, BE, BF,
LU, ML, MR, | BG, BR, CA, CH,
MG, MW, NL, NO,
BJ, CF, CG, CH,
NL, SE, SN, TD, | DE, DK, ES, FI,
PL, RO, SD, SE, SU, US
CM, DE, DK, ES, FR, GA, GB, GR, IT, | | |
| US 5112596 | A | 19920512 | US 1990-512913 | 19900423 |
| AU 9178606 | A | 19911111 | AU 1991-78606 | 19910423 |
| AU 650020 | B2 | 19940609 | | |
| EP 528891 | A1 | 19930303 | EP 1991-909190 | 19910423 |
| EP 528891 | B1 | 20000705 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| JP 05506859 | T | 19931007 | JP 1991-509000 | 19910423 |
| AT 194289 | T | 20000715 | AT 1991-909190 | 19910423 |
| ES 2147722 | T3 | 20001001 | ES 1991-909190 | 19910423 |
| US 5506206 | A | 19960409 | US 1993-121058 | 19930913 |
| GR 3034351 | T3 | 20001229 | GR 2000-402039 | 20000906 |
| PRIORITY APPLN. INFO.: | | | US 1990-512913 | A2 19900423 |
| | | | US 1991-690522 | A3 19910423 |
| | | | WO 1991-US2772 | A 19910423 |
| AB | The permeability of the blood-brain barrier of a host to a (therapeutic or diagnostic) mol. is increased by i.v. coadministration of a bradykinin agonist of blood-brain permeability. [Hyp3, Thi5 4-Me-Tyr8 Ψ (CH2NH)Arg9] bradykinin (A-7; Thi = thiencylalanine; preparation given) increased the brain uptake of loperamide, domperidone, 3H-AZT, 99mTc-DISIDA, and others. Rats with brain tumor implants survived longer when treated with cisplatin coadministered with A-7. | | | |
| AB | The permeability of the blood-brain barrier of a host to a (therapeutic or diagnostic) mol. is increased by i.v. coadministration of a bradykinin agonist of blood-brain permeability. [Hyp3, Thi5 4-Me-Tyr8 Ψ (CH2NH)Arg9] bradykinin (A-7; Thi = thiencylalanine; preparation given) increased the brain uptake of loperamide, domperidone, 3H-AZT, 99mTc-DISIDA, and others. Rats with brain tumor implants survived longer when treated with cisplatin coadministered with A-7. | | | |
| IT | Neoplasia inhibitors
(cisplatin as, bradykinin agonist increasing blood-brain barrier permeability in relation to) | | | |
| IT | Brain, neoplasm
(inhibitors, cisplatin as, bradykinin agonist increasing blood-brain barrier permeability in relation to) | | | |
| IT | 57-50-1, Sucrose, biological studies 9001-03-0 9001-99-4
9040-95-3, 3H-Inulin 902457-23-2 | | | |
| | RL: BIOL (Biological study)
(blood-brain barrier permeability to, bradykinin agonist effect on, mol. weight in relation to) | | | |
| IT | 62571-86-2, Captopril
RL: BIOL (Biological study)
(bradykinin degradation inhibition with, blood-brain barrier permeability to cisplatin in relation to) | | | |

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

| SINCE FILE
ENTRY | TOTAL
SESSION |
|---------------------|------------------|
| 69.78 | 73.00 |

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| SINCE FILE
ENTRY | TOTAL
SESSION |
|---------------------|------------------|
| -9.36 | -9.36 |

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 08:06:11 ON 28 AUG 2007